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The Importance of Nature to Canadians: Survey Highlights

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on the Importance of Nature to Canadians

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Executive Summary

The natural wealth of Canada enhances the daily lives of 20 million Canadians, according to a major new survey. The 1996 Survey on the Importance of Nature to Canadians (the Nature Survey) also tells us that Canadians commit large amounts of their leisure time to activities that depend on natural areas and wildlife. Canada's natural wealth attracts many visitors from the U.S. The $11.7 billion spent by Canadian residents and U.S. tourists on nature-related activities in Canada represents a significant outlay which has important impacts on the Canadian economy. The Nature Survey drew on a nationwide partnership of federal, provincial and territorial agencies. Statistics Canada carried out the survey on behalf of the partnership with a sample of 86,951 Canadians 15 years of age and over. Socioeconomic insights based on survey results will contribute to sustaining Canada's wildlife, water, forests and protected areas that are essential for the public's enjoyment of nature-related activities.

Nature-related activities in Canada

In 1996, 20 million Canadians (84.6 percent of the population aged 15 years and over) took part in one or more nature-related activities in Canada. The popularity of these activities was high across Canada. Participants spent a total of 1.5 billion days of their time enjoying nature-related activities. They took 191.0 million trips, of which three-quarters were same-day trips and one-quarter overnight trips. Expenditures by Canadians on nature-related activities in Canada amounted to $11.0 billion. This amount included $6.0 billion for trip-related items including transportation, accommodation and food, $3.1 billion for special equipment and $1.8 billion for other items needed to pursue nature-related activities.

More specifically:

- About 43.7 percent of Canadians 15 years of age and over participated in one or more of 17 specified outdoor activities in natural areas in Canada, such as sightseeing, camping, and boating.[1] Over half of participants visited national or provincial parks or other protected areas for these activities. These outdoor activities appealed more to Canadians under the age of 45 years than to those over 45. Participation rates near or higher than the national rate were recorded by residents of eight of the 10 provinces and the Yukon. On average, participants committed 16.1 days per participant to these activities during the year. They took an average of 13.3 trips per participant.
- More than one-third (38.3 percent) of Canadians observed or cared for birds and other wildlife around their homes. These activities appealed most to Canadians between the ages of 35 and 65, and to rural residents. The highest participation rates were in several Atlantic provinces (Prince Edward Island, Nova Scotia and New Brunswick), Ontario, British Columbia and the Yukon. Participants in residential wildlife-related activities committed an average of 140.1 days per participant to these activities during the year.
- Nearly one in five Canadians (18.6 percent) participated in wildlife viewing in Canada. This activity was most popular among Canadians between the ages of 25 and 44. Participation rates in wildlife viewing were highest among residents of New Brunswick, Quebec, Manitoba,

[1] The 17 specified activities included sightseeing in natural areas, photographing in natural areas, gathering nuts, berries and firewood, picnicking, camping, swimming/beach activity, canoeing/kayaking/sailing, power boating, hiking/backpacking, climbing, horseback riding, cycling in natural areas, off-road vehicle use, downhill skiing, x-country skiing/snowshoeing, snowmobiling and relaxing in an outdoor setting

British Columbia and the Yukon. On average, participants reported viewing wildlife on 12.5 trips during the year. The average number of days spent wildlife viewing in 1996 is estimated at 17.6 days per participant.

- About one in six Canadians (17.7 percent) took part in recreational fishing in Canada. Higher proportions of men, Canadians younger than 45 and rural residents participated than other groups. Participation rates in recreational fishing were much higher than the national average for residents of the Yukon and Newfoundland, and in most provinces rates were close to the national rate. In all provinces, interest in participating in recreational fishing was twice as high as actual participation, indicating a substantial growth potential for this activity across Canada. On average, participants reported fishing for recreation on 12.5 trips during the year. The average number of days spent recreational fishing in 1996 is estimated at 17.2 days per participant.
- About one in 20 Canadians (5.1 percent) hunted wildlife in Canada. The level of interest in participating in hunting was twice as high as the rate of active participation. In comparison to the general population, hunting was a more common activity among men, Canadians between the ages of 25 and 55 years and rural residents. Hunting participation rates were highest in several of the Atlantic provinces (Newfoundland, Nova Scotia, New Brunswick), Quebec, Saskatchewan and the Yukon. On average, participants reported hunting wildlife on 12.7 trips during the year. The average number of days spent hunting wildlife in 1996 is estimated at 16.9 days per participant.
- Nearly three-quarters (74.5 percent) of Canadians participated in some sort of indirect nature-related activity in 1996, such as watching nature films or television programs, reading books or magazines on nature, visiting zoos, game farms, aquariums or natural history museums, purchasing art, crafts or posters about nature, joining or contributing to nature-related organizations and sustaining land for conservation. Participation rates in these activities were near or higher than the national rate in the 10 provinces.

Nature-related activities by residents of the 10 provinces and the Yukon

In addition to the provincial and territorial comparisons highlighted in this report, Chapters 5 to 15 feature one-page overviews of survey findings for residents of each of the 10 provinces and the Yukon.[2] These overviews focus on participation in nature-related activities, the number of days spent participating, the number of trips taken to participate and the expenditures associated with participation.

Fish and wildlife-based tourism between Canada and the United States

Canada's natural wealth attracts many visitors from other countries. Selected results from the Nature Survey and comparable results from a similar survey in the United States are used to illustrate the positive benefits for Canada of nature-based tourism. The analysis shows that the flow of visitors into Canada from the United States for wildlife viewing or recreational fishing (1.1 million visitors) was twice as high as the flow out in 1996. Further, the American visitors spent nearly twice as many days in Canada (6.0 million days) as did the Canadians who traveled to the United States for wildlife viewing or recreational fishing. A comparison of the two surveys reveals that while in Canada, the U.S. tourists spent three times as much as was spent by the Canadians who traveled to the United States for such purposes. The U.S. tourists spent $705.3 million in Canada in comparison to the $236.1 million spent by Canadians in the U.S., for a net benefit to Canada of $469.2 million in tourism expenditures.

Policy implications of survey results

The information on socioeconomic benefits from the survey can be used to devise and justify a wide range of policies and programs to sustain the benefits from Canada's natural wealth at the federal, provincial, territorial and local levels. The highlights presented in this report will be amplified in future reports that will deal with the positive impact of spending on nature-related activities on the national, provincial and territorial economies in the form of income and jobs, and provide estimates of the economic value stemming from the recreational use of nature.

[2] Due to the vast size of the Northwest Territories and its sparse population, it has been found to be prohibitively expensive to reach this population for surveys. In the case of the Nature Survey, it was determined to be well beyond the ability of sponsors to afford including the Northwest Territories.

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PREFACE

This project represents the combined efforts and expertise of 16 agencies in the governments of Canada, the 10 provinces and the Yukon. The unique cooperative partnership of the agencies involved has enabled the gathering of information useful to the partners and other concerned researchers and managers. However, the ultimate beneficiaries of the study will be Canada's natural areas and the wildlife and fish that live in these areas.

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- Newfoundland Department of Forest Resources and Agrifood
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1. Introduction

Canada is recognized internationally for its natural wealth. This includes its wildlife, forests, water and protected areas. On a global scale, Canada contains 20 percent of the world's remaining natural areas, 9 percent of its fresh water and 15 percent of its forests.[3] Within its ecosystems are found some 200 species of mammals, 400 species of birds, 1,100 species of fish, 80 species of reptiles and amphibians, 30,000 species of invertebrates, and 4,000 species of plants.[4] About 8 percent of Canada — nearly 80 million hectares — lies within protected areas.[5]

Canada's natural environment provides an incredible array of goods and services that benefit people within its borders and beyond. On a per capita basis, Canada has one of the largest endowments of natural resource wealth in the world.[6]

As stewards of these valuable natural assets, Canadians are responsible for managing them to allow sustainable use, and for protecting them from unsustainable forms of development. This requires understanding of two major dimensions. First, it requires an understanding of the state of the natural environment and the threats to its sustainability. Second, it requires an appreciation of the full spectrum of the ways in which people make use of natural assets, and the resulting benefits that nature provides.

The Survey on the Importance of Nature to Canadians (the Nature Survey) was conducted to shed light on this second dimension — namely, the role that nature plays in the lives of Canadians and the socioeconomic benefits that ensue. By illustrating to Canadians the benefits to the well-being of people and the economy that result from their interactions with nature, the survey will help them make sound decisions related to sustainable management of Canada's natural wealth.

Federal, provincial and territorial governments, which share the responsibility for the use and enjoyment of Canada's nature, have worked in partnership to complete the Nature Survey, building on a record of partnership established nearly 20 years ago. It is an update and expansion of a survey conducted every five years since 1981 under the name Survey on the Importance of Wildlife to Canadians (the Wildlife Survey).

In 1997, Statistics Canada conducted the Survey on the Importance of Nature to Canadians covering nature-related activities during the calendar year 1996. Initial survey findings were released in September 1998. A series of reports based on survey results is being prepared by a Task Force representing survey sponsors. This report presents highlights of the involvement Canadians have with nature through participation in a variety of nature-related activities. A second report in the series will assess the positive impact of spending on nature-related activities on the national, provincial and territorial economies in the form of income and jobs, and contribute towards an estimate of the economic value stemming from the recreational use of nature.

The reports will provide information on socioeconomic benefits that can be used to devise and justify policies and programs to sustain the benefits from Canada's natural wealth. For example, information on socioeconomic benefits could serve as a powerful tool to influence federal, provincial, territorial and local decision makers in at least three ways — namely, by 1) incorporating socioeconomic indicators of sustainability in decisionmaking, 2) enhancing public recognition of the important economic contributions of Canada's ecosystems and biodiversity to governments and industries as shown in the national income accounts, and 3) help to demonstrate the significant returns to investments in actions to sustain Canada's natural assets by providing measures of the socioeconomic benefits that may be lost if these assets are degraded.

1.1 Background

The Survey on the Importance of Nature to Canadians is the result of a partnership of 16 federal, provincial and territorial government agencies responsible for wildlife, water, forestry, tourism and parks and protected areas, led by Environment Canada. Statistics Canada conducted the survey among a sample of approximately 87,000 Canadians on behalf of the partnership. A Task Force represented the federal, provincial and territorial partners in overseeing the design, conduct, analysis and reporting of the survey.

[3-6] See references 1-4 in Appendix III.

The objective of the survey was to collect basic, accurate and reliable socio-economic information on the importance of nature to Canadians. This information is essential to meet the diverse policy and program needs of the sponsoring agencies in fostering Sustainable Development. The survey focussed on people's behaviour. It included questions on participation in nature-related activities, trips taken for these activities, levels of commitment of time and money, and the locations at which these activities took place.

The 1996 survey was designed to update and enhance information from surveys co-sponsored by similar partnerships in 1981, 1987 and 1991 under the name Survey on the Importance of Wildlife to Canadians. The Nature Survey included questions on fish and wildlife-related activities similar to those in previous surveys. It was expanded to include a new set of questions on outdoor activities in natural areas such as camping and boating, among others.

A new dimension was introduced by including questions on the locations at which various nature-related activities took place. This will allow new policy and program needs to be met by enabling analyses of results by regions of interest to survey partners, such as ecozones, drainage basins and subprovincial management regions, among many others.

This report is the first in a series on 1996 survey results under the generic title "The Importance of Nature to Canadians". It was jointly written by members of the Federal-Provincial-Territorial Task Force on the Importance of Nature to Canadians.

Reports on the 1981, 1987 and 1991 survey findings are shown in Appendix III, references 5-13. Copies may be obtained from the authors of this report or from the agencies sponsoring the survey. The 1991 and 1996 reports are also available on the Nature Survey website: **http://www.ec.gc.ca/nature/survey.htm**.

Methodology of the Survey

Statistics Canada administered the survey as a supplement to its monthly Labour Force Survey (LFS). The LFS is based on a multistage probability sample design. Statistics Canada employs a national network of interviewers to collect the data, and observes high standards for maintaining confidentiality and privacy for individuals from whom the data are collected.

The Nature Survey sample of 86,951 Canadians was representative of approximately 98 percent of the Canadian population 15 years of age or over in the 10 provinces and the Yukon. The sample for the Yukon included organized communities only, stratified by community size. Residents of the Northwest Territories were excluded from the sample due to the extremely high costs associated with surveying this population. Also excluded were residents of Indian reserves, full-time members of the Canadian Armed Forces and people living in institutions.

The survey questionnaire was prepared by the Task Force and tested by Statistics Canada in a series of cross-Canada focus groups in summer-fall 1996. It was an update and expansion of an instrument used in the 1981, 1987 and 1991 Surveys on the Importance of Wildlife to Canadians. The questionnaire was carefully designed to avoid double-counting of the same days, trips and expenditures. Questions were included to ensure that the activity reported was the main reason for days spent on an activity, trips taken to participate and associated expenditures. Other questions were included to permit certain activities to be reported as secondary reasons for time spent and trips taken. These and other changes and enhancements made to the 1996 survey questionnaire should be taken into account when making comparisons among the results of the four surveys. **Guidelines for making comparisons with the 1991 Wildlife Survey are provided in Appendix II.**

Collection and processing of survey data was carried out by Statistics Canada. The mail-out/mail-back questionnaire was mailed to the 86,951 individuals in the sample in March 1997. Respondents were asked to answer questions regarding their activities during the calendar year 1996. Statistics Canada's 1000 interviewers across Canada conducted telephone follow-ups to encourage respondents to complete and return the questionnaire. To ensure a good response rate, interviewers administered the questionnaire over the telephone to respondents who had not returned questionnaires after the follow-ups. With this combined mail and telephone survey, a total of 61,348 questionnaires (70.6 percent) was completed. After edits to ensure a minimum amount of questions had been answered, the

number of useable questionnaires was 60,789 (69.9 percent). The sample size, numbers of respondents, response rate and numbers of useable questionnaires for Canada, the 10 provinces and the Yukon are as follows:

Province or territory	Sample size	Number of questionnaires returned	Response rate (%)	Number of useable questionnaires
Newfoundland	3,595	2,512	69.9	2,501
Prince Edward Island	2,325	1,551	66.7	1,518
Nova Scotia	5,715	4,113	72.0	4,068
New Brunswick	5,558	3,580	64.4	3,541
Quebec	16,960	11,930	70.3	11,857
Ontario	26,025	18,447	70.9	18,311
Manitoba	6,088	4,453	73.1	4,414
Saskatchewan	5,128	3,598	70.2	3,556
Alberta	6,524	4,711	72.2	4,670
British Columbia	7,752	5,533	71.4	5,448
Yukon	1,281	920	72.0	905
Canada total	**86,951**	**61,348**	**70.6**	**60,789**

Data processing of completed questionnaires included data capture under strict quality control procedures, an exhaustive computer edit for data quality and completeness, weighting of sample results to obtain corresponding population estimates and a procedure to link demographic data on respondents held by Statistics Canada to their responses to the Survey on the Importance of Nature to Canadians.

The majority of survey estimates were imputed for non-response to individual questions in order to represent the magnitude of amounts such as trips, days and dollars spent on nature-related activities more closely. Measures of the statistical reliability of the data were prepared by Statistics Canada to ensure that all information released satisfied a minimum level of reliability.

Sponsors of the survey were invited to submit their information requirements to Environment Canada. These requirements formed the basis for tabular data requested from Statistics Canada. A set of Statistical Compendiums for Canada, the 10 provinces and the Yukon consisting of detailed tabulations of survey results was prepared for the internal use of the agencies sponsoring the survey. A Federal-Provincial-Territorial Task Force chaired by Environment Canada was charged with overseeing the analysis and publication of the results.

Full details of the methodology of the survey will be available in a User's Guide to be prepared by Statistics Canada and Environment Canada. This guide will be provided to survey sponsors and other users of the results.[7]

1.4

Statistical reliability of survey results

The Survey on the Importance of Nature to Canadians was designed to derive reliable estimates of nature-related activities among Canadians by sampling a portion of that population. The data included in the tables and figures in this report are *estimates* drawn from that sample. In general, the reliability of any of these estimates depends on an adequate number of Canadians with all relevant characteristics being included in the sample. The reliability of an estimate also depends on the variability of the characteristic measured by a question among individuals who responded to the question. If there is little variation, the sample can be much smaller than if there is high variability.

In this report, the statistical reliability of all estimates in tables and figures has been assessed by examining the sampling variability of each estimate. Most estimates meet Statistics Canada criteria for a sufficiently low level of variability to be used with confidence. In some cases, the variability of certain estimates is higher than for others.

[7] See reference 14 in Appendix III.

Such cases are noted in the tables and figures by the following symbol: * This symbol should be interpreted as follows:

Estimates of participation: the sampling variability of this estimate is slightly higher than for other groups, as the sample size on which the estimate is based is small.

Estimates of days, trips and expenditures: the sampling variability of this estimate is slightly higher than for other groups for reasons such as the small sample size on which the estimate is based and the degree of variation in the distribution of the characteristic measured.

1.4

Structure and scope of the report

The report presents survey results in four parts. **Part A** of the report highlights survey results for a number of different nature-related activities. The following activities are first presented, beginning with those with the highest rates of participation: outdoor activities in natural areas, residential wildlife-related activities, wildlife viewing, recreational fishing and hunting. Results for indirect nature-related activities are then presented. Each of the activities covered is described in chapter 2, and in the definitions included in **Appendix I**. Results for nature-related activities are analyzed at national, provincial and territorial levels, including participation rates, the frequency of participation and the amount of money committed to these activities. **Chapters 2 to 4** of Part A cover the national level and also provide comparisons among the 10 provinces and the Yukon, whereas **Chapters 5 to 15** cover the results for the provinces and the Yukon in detail. In the remaining parts of the report, all chapters cover national, provincial and territorial levels together. Important guidelines for comparing the Nature Survey results presented in Part A of the report with those published in previous survey reports are included in **Appendix II**.

In **Part B**, the extent to which Canadians took trips for wildlife viewing or recreational fishing to the United States, the major destination for Canadian tourists, is examined. This chapter also presents results from a similar survey by the U.S. Fish and Wildlife Service, which asked Americans about wildlife viewing and recreational fishing on trips taken to Canada.

Part C includes an examination of the Canadian public's interest in participating in nature-related activities. The level of interest expressed in participating in these activities is contrasted with the actual level of participation in 1996.

The conclusion of the report in **Part D** consists of socioeconomic insights for policies and programs pertaining to the use and enjoyment of nature that emerge from the survey findings.

1.5

Data presentation

The tables and figures in this report were prepared based on data tabulations provided by Statistics Canada or on additional analyses by Environment Canada based on the survey data set. A selection of the most significant data is included in these tables and figures and discussed in the text. However, all data discussed in the text are not necessarily displayed in tables and figures.

Throughout this report, the estimated total number of participants is presented as well as the participation rate — that is, the proportion of the population represented by participants. The rate is based on the unrounded survey estimate and is itself rounded to one decimal. The estimate itself is shown in this report rounded to the nearest thousand. Estimates expressed in millions are rounded to one decimal. A similar procedure is followed for the information presented in Part C. In the case of information on days, trips and expenditures, the estimated totals are presented as well as the average — that is, the total days, trips or expenditures divided by the total number of participants. The average is based on the unrounded survey estimate and is itself rounded to one decimal (for days and trips) or the nearest whole number (for expenditures). The estimate itself is shown in this report rounded to the nearest thousand. Estimates expressed in millions or billions are rounded to one decimal. In a number of instances, comparisons of two or more estimates are made in the report and the differences are expressed in percentages — for example, the proportion of total expenditures used to purchase equipment. Such percentages are based on unrounded survey estimates and are themselves rounded to one decimal. **The findings in this report may be revised as a result of ongoing statistical analyses.**

PART A
NATURE-RELATED ACTIVITIES IN CANADA

Canada's natural wealth — its wildlife, water, forests and protected areas — sustains a variety of nature-related activities that enhances the daily lives of millions of Canadians. The survey shows that 20 million Canadians aged 15 years and over participated in one or more nature-related activities in Canada during 1996. Participants dedicated 1.5 billion days of their leisure time and $11.0 billion to these activities. The popularity of these activities was high in all 10 provinces and the Yukon.

In this part of the report, levels of participation, profiles of participants and the amounts of time and money committed to nature-related activities are highlighted. The base for the calculation of the percentages presented was the Canadian population aged 15 years and over in the 10 provinces and in organized communities in the Yukon. Definitions of key terms are included in Appendix I.

2. PARTICIPATION IN NATURE-RELATED ACTIVITIES BY CANADIANS

The survey covered a number of different types of nature-related activities, including *outdoor activities in natural areas*, *residential wildlife-related activities*, *wildlife viewing*, *recreational fishing*, *hunting*, and *indirect nature-related activities*. Each of these activities is described below and defined in Appendix I.

In 1996, an estimated 19.9 million Canadians aged 15 years and over (84.6 percent of the population) participated in one or more of these nature-related activities in Canada (Figure 1).

Some types of activity involved visits to natural areas, for example, outdoor activities in natural areas, such as sightseeing, camping and boating (section 2.1). Others involved encounters with wildlife or fish near home or on trips, such as residential wildlife-related activities (section 2.2), wildlife viewing (section 2.3), recreational fishing (section 2.4) and hunting (section 2.5). Nature was also experienced in indirect nature-related activities such as reading or watching television programs about nature (section 2.6).

Nature-related activities enjoyed high levels of popularity across Canada. More than three-quarters of the residents of the 10 provinces and the Yukon included in the survey took part in one or more of these activities during 1996 (Figure 2). Residents of Alberta, Manitoba, Saskatchewan, Nova Scotia, Prince Edward Island and Ontario recorded participation rates near or higher than the national rate of 84.6 percent, with Alberta residents showing the highest rate of 88.9 percent. The remaining provinces showed rates slightly lower than the national rate. Although the Yukon's participation

FIGURE 1

NUMBER AND PERCENTAGE OF CANADIANS PARTICIPATING IN NATURE-RELATED ACTIVITIES IN CANADA IN 1996

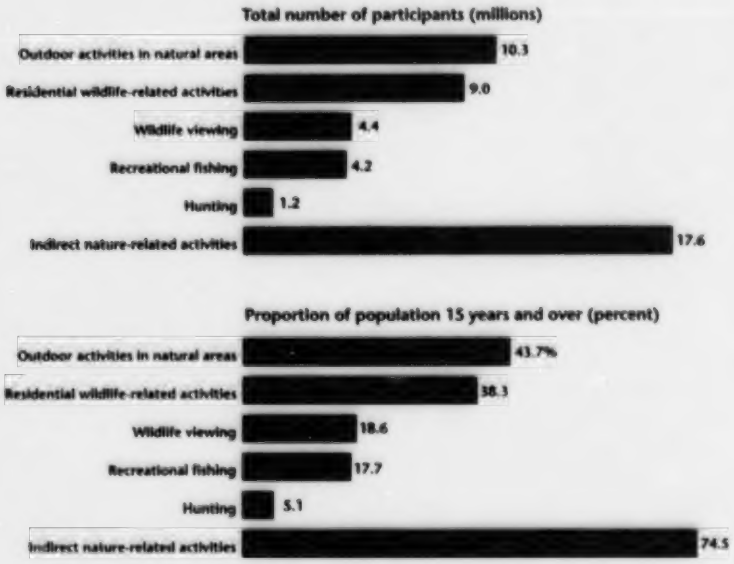
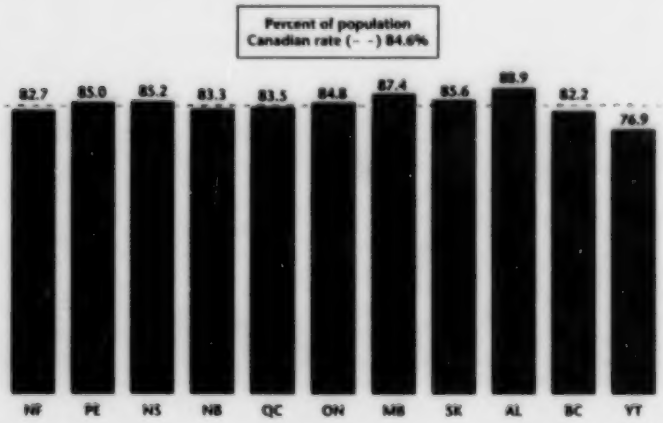


FIGURE 2

PERCENTAGE OF CANADIANS PARTICIPATING IN NATURE-RELATED ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



rates in other activities covered by the survey were high, the overall rate was lower in the Yukon because fewer residents took part in indirect nature-related activities.

Some types of nature-related activities appealed to a representative cross-section of the Canadian population while others appealed to participants whose profile differed with regard to sex, age, urban-rural residence, education or personal income. Table 1 shows the profile of the Canadian population 15 years of age and over, in contrast to the profiles of participants in the various nature-related activities. It shows that the proportions of men and women who participated in outdoor activities in natural areas, residential wildlife-related activities and wildlife viewing were quite similar to the proportions of men and women in the Canadian population. In contrast, the proportions of men and women who fished or hunted were quite different from the proportions in the general population.

This chapter provides an overview of participation in the different nature-related activities included in the survey. It discusses the levels of participation and participation rates among Canadians during the year 1996. It also includes profiles of participants in order to highlight the distinctive characteristics of Canadians who took part in the various nature-related activities. Results for residents of each of the 10 provinces and the Yukon are reported in a comparative manner in each section and are examined in more detail in Chapters 5 to 15.

2.1

Outdoor activities in natural areas

Outdoor activities in natural areas are defined as one or more of 17 specified recreational activities that take place on trips to natural areas. Natural areas are defined as forested areas, water bodies, wetlands, open fields or other types of areas such as a mountains or caves.

In 1996, an estimated 10.3 million Canadians (43.7 percent of the population aged 15 years and over) participated in outdoor activities in the natural areas of Canada (Figure 1). Figure 3 shows the proportions who participated in each of the 17 specified activities, and Table 2 shows participation rates in these activities for residents of the 10 provinces and the Yukon. Figure 3 shows, among other things, that:

- the natural areas of Canada provided opportunities for such activities as sightseeing (31.1 percent of Canadians), picnicking (26.0 percent), swimming or beach activity (23.7 percent), camping (18.8 percent) and nature photography (15.9 percent), among others;
- natural areas were used for hiking or backpacking (18.5 percent of Canadians), cycling (8.6 percent), off-road vehicle use (3.4 percent) and horseback riding (1.6 percent), and in winter for downhill skiing (4.7 percent), cross country skiing or snowshoeing (3.5 percent) and snowmobiling (2.5 percent);
- boating was an important outdoor activity for Canadians, including canoeing, kayaking or sailing (9.9 percent) and power boating (9.3 percent).

The profile of the participants in outdoor activities in natural areas was similar to that of the Canadian population in terms of the proportions of men and women and of urban and rural residents (Table 1). However, the profile differed in several other ways from that of the general population. Table 1 shows that participation in these activities tended to be more popular among Canadians under the age of 45, particularly the 25 to 44 year age groups. These activities were also more popular among Canadians with an

TABLE 1

PROFILE OF CANADIANS PARTICIPATING IN NATURE-RELATED ACTIVITIES IN 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing	Recreational fishing	Hunting	Population of Canada 15+
Total number of participants 15 years and over	10.3 million	9.0 million	4.4 million	4.2 million	1.2 million	23.6 million
	Percent of participants					
Male	50.5	47.5	49.3	66.3	85.0	49.1
Female	49.5	52.5	50.7	33.7	15.0	50.9
15-19 years	9.8	6.6	7.8	9.4	6.7	8.4
20-24 years	10.1	6.3	8.8	9.3	8.4	8.4
25-34 years	25.0	18.5	23.8	23.5	21.9	19.9
35-44 years	25.6	23.3	25.9	26.8	27.3	21.4
45-54 years	15.4	18.7	17.2	16.2	19.2	16.4
55-64 years	7.6	12.2	8.9	8.0	10.2	10.8
65 years and over	6.5	14.4	7.6	6.8	6.3	14.6
Urban	83.0	77.1	82.1	77.7	62.7	83.0
Rural	17.0	22.9	17.9	22.3	37.3	17.0
0-8 years	5.1	8.2	5.2	7.6	11.0	11.4
Some secondary	16.2	16.9	14.3	19.4	19.9	18.5
Graduated from high school	17.3	18.1	17.2	18.5	17.7	18.5
Some post-secondary	11.2	9.9	11.0	10.5	8.0	9.9
Post-secondary certificate or diploma	27.4	26.7	27.8	29.1	32.0	24.6
University degree	22.8	20.2	24.5	14.9	11.3	17.1
No income	10.1	10.1	9.3	8.9	6.1	11.9
Less than $5,000	10.4	9.3	9.5	9.4	6.0	9.9
$5,000-$9,999	9.6	11.1	10.2	8.7	7.8	12.2
$10,000-$19,999	16.6	19.6	17.3	16.2	15.5	20.4
$20,000-$29,999	16.5	15.9	16.4	17.1	20.3	16.5
$30,000-$39,999	13.4	12.1	13.4	14.5	16.4	11.3
$40,000-$49,999	9.0	8.3	9.1	9.5	11.0	7.1
$50,000 or more	14.5	13.7	14.8	15.6	17.0	10.7

FIGURE 3

PERCENTAGE OF CANADIANS PARTICIPATING IN OUTDOOR ACTIVITIES IN NATURAL AREAS IN 1996

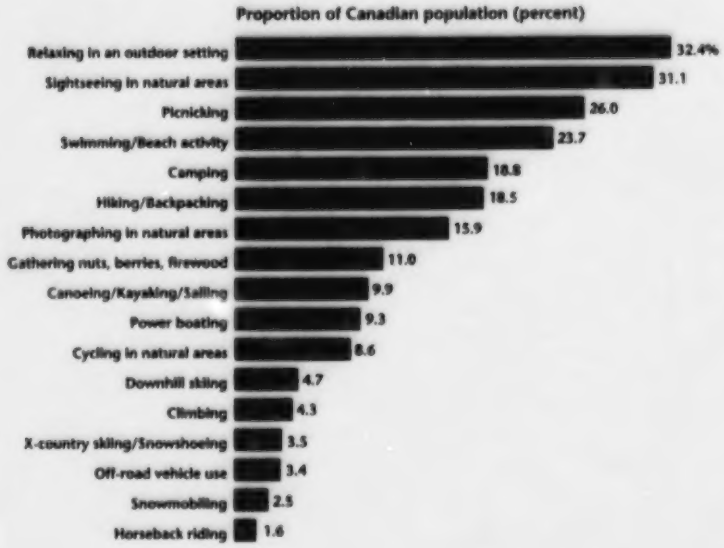
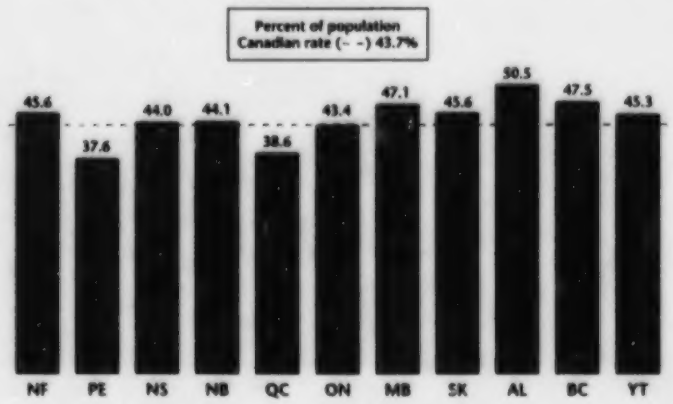


FIGURE 4

PERCENTAGE OF CANADIANS PARTICIPATING IN OUTDOOR ACTIVITIES IN NATURAL AREAS IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



education beyond secondary school and those with personal incomes of $30,000 or more in 1996.

Participation rates for residents of eight of the provinces and the Yukon were near or slightly higher than the national rate of 43.7 percent, with Alberta showing the highest rate at 50.5 percent (Figure 4). Quebec and Prince Edward Island residents recorded participation rates lower than the national rate.

Other findings:

- The majority of participants (96.4 percent) took part in these activities within the borders of their province or territory of residence. Fewer (17.0 percent) went to other provinces or territories.
- Over half (56.9 percent) of participants indicated that they had visited national or provincial parks or other protected areas for the main reason of taking part in outdoor activities. Residents of the three prairie provinces, British Columbia and Prince Edward Island recorded rates that were higher than the national rate, with Manitoba and Saskatchewan residents showing the highest rate of 73.6 percent each (Figure 5). In the remaining provinces approximately one-half of participants visited parks and other protected areas for outdoor activities.
- Participants were asked whether wildlife viewing, fishing or hunting were secondary reasons for their trips to natural areas for outdoor activities. Just under half (5.0 million or 48.7 percent) indicated that they participated in wildlife viewing, fishing or hunting as secondary activities while on these trips. Survey results for these 5.0 million

TABLE 2

PERCENTAGE OF CANADIANS PARTICIPATING IN 17 SPECIFIED OUTDOOR ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE

	Relaxing in an outdoor setting	Sightseeing in natural areas	Picnicking	Swimming/ beach activity
Canada	32.4%	31.1%	26.0%	23.7%
Newfoundland	34.4	29.1	26.3	24.1
P.E.I.	28.1	23.0	21.5	27.0
Nova Scotia	34.0	30.8	26.0	27.5
New Brunswick	32.0	30.1	25.5	23.0
Quebec	24.2	29.3	22.2	16.4
Ontario	32.7	29.6	25.7	26.1
Manitoba	39.5	31.8	26.8	32.2
Saskatchewan	37.0	30.8	28.1	28.8
Alberta	41.9	37.7	31.4	22.7
B.C.	36.8	35.1	30.0	26.6
Yukon	32.9	37.0	31.9	16.7

	Camping	Hiking/ Backpacking	Photographing in natural areas	Gathering nuts, berries, firewood
Canada	18.8%	18.5%	15.9%	11.0%
Newfoundland	24.2	17.2	16.1	20.2
P.E.I.	15.8	11.6	10.4	10.2
Nova Scotia	19.9	17.3	15.7	12.4
New Brunswick	19.9	16.5	13.9	12.6
Quebec	12.4	17.1	11.6	9.3
Ontario	17.3	16.8	15.8	10.2
Manitoba	22.7	18.1	17.3	13.2
Saskatchewan	25.9	15.7	15.5	15.0
Alberta	29.7	25.7	22.4	13.7
B.C.	24.0	23.4	20.1	11.1
Yukon	31.4	26.1	25.8	13.5

	Canoeing/ kayaking/ sailing	Power boating	Cycling in natural areas	Downhill skiing	Climbing
Canada	9.9%	9.3%	8.6%	4.7%	4.3%
Newfoundland	9.0	7.4	3.4	2.1	4.2
P.E.I.	5.2	4.3	4.6	2.5	2.3
Nova Scotia	10.2	4.8	5.2	2.8	4.2
New Brunswick	10.2	5.5	7.3	2.3	3.5
Quebec	8.6	6.5	10.8	5.7	1.2
Ontario	11.4	10.1	7.5	3.7	4.3
Manitoba	10.1	14.4	10.7	2.9	5.2
Saskatchewan	9.3	16.7	9.1	3.6	4.0
Alberta	8.6	9.5	9.7	6.8	7.4
B.C.	9.3	10.7	8.5	6.2	6.7
Yukon	10.3	10.4	7.8	3.6*	10.0

	X-country skiing/ Snowshoeing	Off-road vehicle use	Snow-mobiling	Horseback riding
Canada	3.5%	3.4%	2.5%	1.6%
Newfoundland	3.6	7.0	10.4	2.4
P.E.I.	2.5	1.9	1.6*	2.3
Nova Scotia	1.6	4.3	1.3	1.7
New Brunswick	2.8	5.2	3.3	1.0
Quebec	5.6	3.9	2.7	0.9
Ontario	2.8	2.3	2.4	1.3
Manitoba	3.4	3.1	4.1	2.1
Saskatchewan	1.9	2.7	3.2	3.3
Alberta	3.0	4.2	2.3	3.8
B.C.	2.9	4.5	1.0	2.0
Yukon	5.8	4.0	5.1	3.0*

* See note on the statistical reliability of survey results in section 1.3.

participants will be discussed in Chapters 2 and 3, along with results for participants with wildlife viewing, fishing or hunting as main activities.

2.7 Residential wildlife-related activities

Residential wildlife-related activities are defined as activities that take place around the residence and involve watching, photographing, studying or feeding wildlife. In 1996, an estimated 9.0 million Canadians (38.3 percent of the population aged 15 years and over) participated in residential wildlife-related activities (Figure 1).[8]

The profile of participants in these activities was similar to that of the Canadian population in terms of the proportions of men and women (Table 1). Residential wildlife-related activities were more popular among rural Canadians than among urban Canadians compared with the population in general. These activities tended to be more popular among Canadians between the ages of 35 and 64 and less popular among those younger and older than these ages. Canadians with post-secondary or university education and those with personal incomes of $30,000 or more in 1996 were more likely to participate.

Participation rates in residential wildlife-related activities were somewhat higher than the national rate of 38.3 percent in Prince Edward Island.

[8] The 1996 survey included activities around the residence only, whereas the previous surveys included both activities around the residence and around the cottage. As a result, the 1996 estimates are not comparable with those from the previous surveys.

Nova Scotia and New Brunswick, followed by Ontario, British Columbia and the Yukon (Figure 6). Residents of the remaining provinces reported rates close to the national rate, with the exception of Quebec, where participation rates were somewhat lower.

Other findings:

- Watching wildlife was the most popular form of residential wildlife-related activity, with 84.2 percent of participants reporting this form in 1996. Purchasing or putting out special feed for wildlife was undertaken by 57.3 percent of participants, and 52.6 percent maintained plants, shrubs, or birdhouses for wildlife. Studying and identifying wildlife (43.3 percent) and photographing wildlife (22.2 percent) were other reported forms of activity.
- Birds other than waterfowl, such as warblers and robins, were observed or cared for by 90.7 percent of participants. Smaller proportions observed or cared for small mammals such as squirrels (57.2 percent), waterfowl such as ducks and geese (26.7 percent), large mammals such as deer (18.7 percent) and other wildlife such as butterflies and frogs (20.4 percent).

FIGURE 5

PERCENTAGE OF PARTICIPANTS IN OUTDOOR ACTIVITIES IN NATURAL AREAS IN 1996 WHO VISITED PARKS OR OTHER PROTECTED AREAS, BY PROVINCE OR TERRITORY OF RESIDENCE

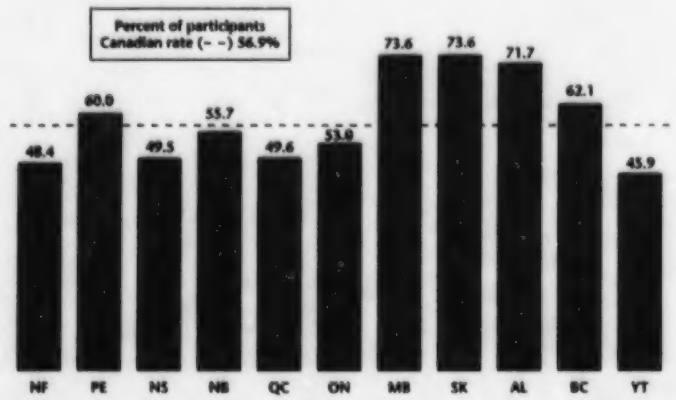
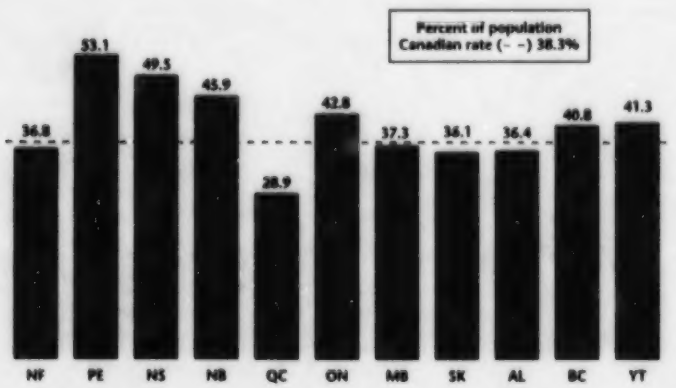


FIGURE 6

PERCENTAGE OF CANADIANS PARTICIPATING IN RESIDENTIAL WILDLIFE-RELATED ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



Wildlife viewing

Wildlife viewing is defined as watching, photographing, studying or feeding wildlife on trips taken for the purpose of enjoying wildlife and natural areas. Wildlife encounters on trips taken for purposes such as vacation or business are excluded from the definition.

In 1996, an estimated 4.4 million Canadians (18.6 percent of the population aged 15 years and over) participated in wildlife viewing in Canada (Figure 1). The profile of these participants was similar to that of the Canadian population in terms of the proportions of men and women and of urban and rural residents (Table 1). However, the profile differed in several other ways from that of the general population. Table 1 shows that participation in wildlife viewing tended to be more popular among Canadians between the ages of 20 and 55, particularly the 25 to 44 year age groups. This activity

was also more popular among Canadians with an education beyond secondary school and those with personal incomes of $30,000 or more in 1996.

Residents of New Brunswick, Quebec, Manitoba, British Columbia and the Yukon recorded participation rates higher than the national rate of 18.6 percent, with British Columbia and the Yukon residents recording the highest rates at 20.8 percent and 27.9 percent respectively (Figure 7). Residents of the remaining provinces recorded participation rates close to the national rate, with the exception of Prince Edward Island and Saskatchewan residents, who recorded somewhat lower rates.

The forms that wildlife viewing took varied, and to distinguish between them, two forms were defined. The first, **wildlife viewing as the main activity**, occurs when watching, photographing, studying or feeding wildlife are the main reasons for a trip. The second, **wildlife viewing as a secondary activity**, occurs when watching, photographing, studying or feeding wildlife are secondary reasons for a trip taken for the outdoor activities described in section 2.1. The survey included more detailed questions for wildlife viewing as the main activity, the results of which are reported below.

In 1996, 1.5 million Canadians (6.2 percent of the population) participated in wildlife viewing as the main activity, whereas 3.7 million Canadians (15.5 percent of the population) participated in wildlife viewing as a secondary activity (Figure 8).

Highlights for the 1.5 million participants with wildlife viewing as the main activity include the following:

- Watching wildlife was the most popular activity, with 83.1 percent of these participants reporting having watched wildlife on their trips. Photographing wildlife was undertaken by 45.8 percent of participants, studying wildlife by 42.0 percent, and feeding wildlife by 24.9 percent.
- These participants reported seeing waterfowl such as geese (57.7 percent of participants), other types of birds such as warblers (61.3 percent), small mammals such as foxes (48.8 percent), large mammals such as moose and whales (43.3 percent), and other wildlife such as butterflies (31.8 percent).
- The majority of participants (96.0 percent) took part in wildlife viewing within their province or territory of residence. Fewer went to other provinces or territories (12.7 percent).
- Parks and other protected areas were important locations for wildlife viewing. Just over half (50.8 percent) of participants reported they had taken trips to national or provincial parks or other protected areas for the main reason of viewing wildlife.

FIGURE 7

PERCENTAGE OF CANADIANS PARTICIPATING IN WILDLIFE VIEWING AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE

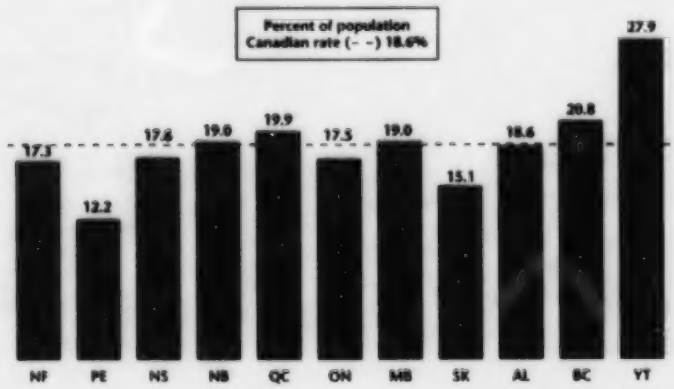
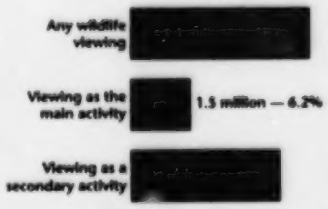


FIGURE 8

NUMBER AND PERCENTAGE OF CANADIANS PARTICIPATING IN WILDLIFE VIEWING IN 1996



Note: The total of 4.4 million participants is less than the sum of the two types of wildlife viewing on trips since 742,000 Canadians viewed wildlife as both main and secondary activities during the year.

Recreational fishing

In 1996, an estimated 4.2 million Canadians fished for recreation in Canada (17.7 percent of the population aged 15 years and over) (Figure 1). Table 1 shows that in comparison with the population in general, recreational fishing was more popular among men than women. Fishing was also more popular among rural Canadians than among urban Canadians. Participation was more concentrated among those younger than 45 years of age than among the older age groups. The table also shows that fishing was more popular among Canadians with education beyond high school but less than university. The personal incomes of participants were higher than for the Canadian population in 1996 and were particularly concentrated in the $30,000 or more personal income ranges.

Residents of the Yukon and Newfoundland recorded participation rates in recreational fishing that were much higher than the national rate of 17.7 percent, at 32.2 and 30.6 percent, respectively (Figure 9). In the other provinces, the proportions of residents who fished during the year were close to the national rate, with the exception of Prince Edward Island where rates were lower than the national rate.

The forms that recreational fishing took varied, and to distinguish between them, two forms were defined. The first, **fishing as the main activity**, occurs when recreational fishing is the main reason for a trip. The second, **fishing as a secondary activity**, occurs when fishing is a secondary reason for taking a trip for the types of outdoor activities described in section 2.1. More detailed results are available from the survey for participants in fishing as the main activity, and are reported below.

In 1996, 3.1 million Canadians (13.2 percent of the population) participated in recreational fishing as the main activity, whereas 2.2 million (9.4 percent) fished as a secondary activity (Figure 10).

Highlights for the 3.1 million Canadians with fishing as the main activity include the following:

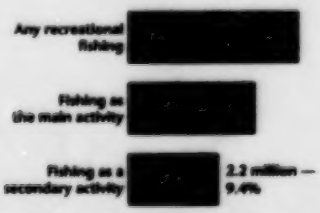
- The majority of these anglers fished in freshwater lakes, rivers or streams (96.4 percent). Fewer fished in the Pacific Ocean (5.8 percent) or the Atlantic Ocean (4.1 percent).
- Three quarters (75.6 percent) caught fish on their trips during the year.
- Nearly one-third of these anglers (30.4 percent) visited national or provincial parks or other protected areas for the main reason of fishing for recreation

FIGURE 9

PERCENTAGE OF CANADIANS PARTICIPATING IN RECREATIONAL FISHING AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE

FIGURE 10

NUMBER AND PERCENTAGE OF CANADIANS PARTICIPATING IN RECREATIONAL FISHING IN 1996



Note: The total of 4.2 million participants is less than the sum of the two types of recreational fishing trips since 1.1 million Canadians fished as both main and secondary activities during the year.

Hunting

In 1996, an estimated 1.2 million Canadians hunted wildlife in Canada, representing 5.1 percent of the population aged 15 years and over (Figure 1). The profile of the 1.2 million hunters differs from the profile of the Canadian population. In comparison to the general population, hunting was a more common activity among men than women in 1996 and among rural residents than urban residents (Table 1). It was also more popular among Canadians in the 25 to 54 year age groups, and less popular among those under 25 and over 54. Table 1 also shows that hunting activity was more concentrated among those with some secondary schooling and among those with a post-secondary school certificate or diploma. The personal incomes of hunters were higher than those of the Canadian population as a whole, with 64.7 percent reporting incomes higher than $20,000 compared to 45.6 percent for the Canadian population.

Hunting participation rates were higher than the national rate of 5.1 percent in several of the eastern provinces, with residents of Newfoundland recording the highest rate, followed by residents of New Brunswick and Nova Scotia (Figure 11). Rates were also higher than the national rate in the Yukon, Quebec and Saskatchewan. Rates lower than the national rate were recorded by residents of Manitoba, Alberta, British Columbia, Ontario and Prince Edward Island.

Two forms of hunting were distinguished in the survey. The first, **hunting as the main activity**, occurs when hunting is the main reason for a trip. The second, **hunting as a secondary activity**, occurs when hunting is a secondary reason for a trip taken for the types of outdoor activities described in Section 2.1. The survey included more detailed questions for hunting as the main activity, including a breakdown by four types of hunting: waterfowl, other birds, small mammals and large mammals.

In 1996, 1.0 million Canadians (4.2 percent of the population) participated in hunting as the main activity, whereas 416,000 Canadians (1.8 percent) hunted as a secondary activity (Figure 12).

Highlights for the 1.0 million Canadians with hunting as the main activity include the following:

- Nearly three-quarters of these hunters (72.4 percent or 721,000 Canadians) sought large mammals such as deer. Birds other than waterfowl, such as grouse, were sought by 37.6 percent of these hunters (375,000 Canadians). Approximately one-quarter sought waterfowl such as ducks and geese (23.6 percent or 235,000 Canadians), or small game mammals such as rabbits (23.1 percent or 230,000 Canadians).
- The proportion of hunters who harvested wildlife varied by type of wildlife: The rates were 68.9 percent for those who hunted birds other than waterfowl, 64.1 percent for waterfowl hunters, 61.6 percent for those who hunted small game mammals and 42.0 percent for those who hunted large game mammals.

FIGURE 11

PERCENTAGE OF CANADIANS PARTICIPATING IN HUNTING AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE

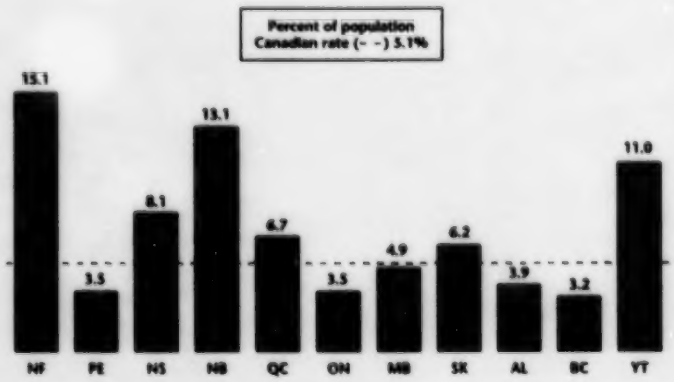
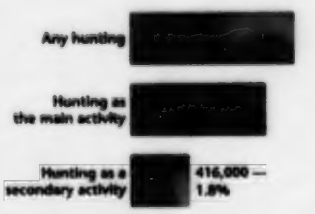


FIGURE 12

NUMBER AND PERCENTAGE OF CANADIANS PARTICIPATING IN HUNTING IN 1996



Note: The total of 1.2 million participants is less than the sum of the two types of hunting since 221,000 Canadians hunted wildlife as both main and secondary activities during the year.

Indirect nature-related activities

In 1996, an estimated 17.6 million Canadians (74.5 percent of the population) participated in some form of indirect nature-related activity (Figure 13). Watching films or television programs on nature was the most popular form of indirect activity, attracting 16.4 million Canadians (69.6 percent of the population). Reading about nature was reported by 10.2 million Canadians (43.4 percent), followed by visiting a zoo, game farm, aquarium or natural history museum, which attracted 6.7 million Canadians (28.6 percent). The purchase of art, crafts or posters of nature was reported by 3.9 million Canadians (16.5 percent). Nature-related organizations attracted 1.3 million Canadians (5.4 percent) as members or contributors. Maintaining, restoring or purchasing land for fish and wildlife habitat or to sustain a natural setting was reported by 760,000 Canadians (3.2 percent).

FIGURE 13

PERCENTAGE OF CANADIANS PARTICIPATING IN INDIRECT NATURE-RELATED ACTIVITIES IN 1996

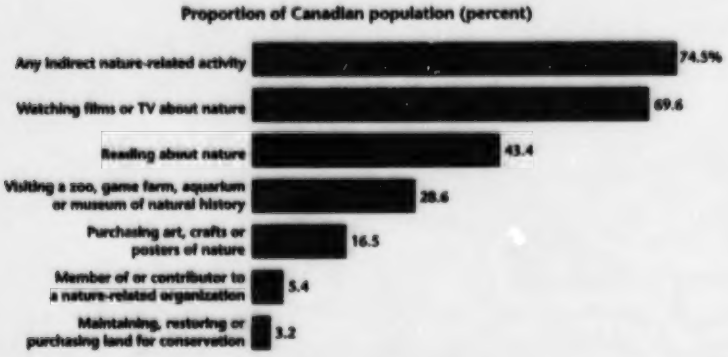
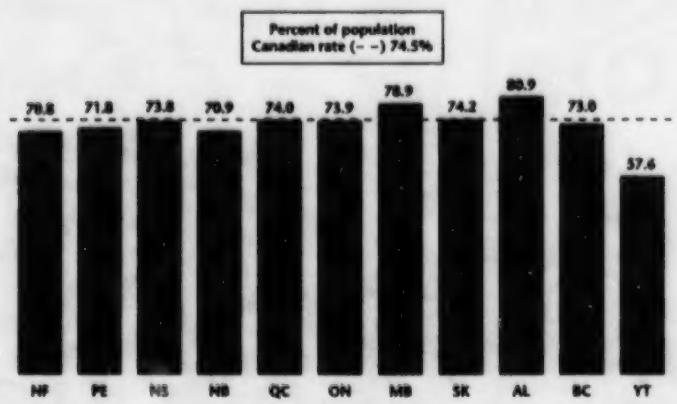


FIGURE 14

PERCENTAGE OF CANADIANS PARTICIPATING IN INDIRECT NATURE-RELATED ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



The profile of the 17.6 million participants in these activities is very similar to that of the Canadian population as a whole that is shown in Table 1. The proportions of provincial residents who participated in indirect nature-related activities were slightly higher than the national rate of 74.5 percent among residents of Alberta and Manitoba, and near the national rate in the remaining provinces (Figure 14). The rate for Yukon residents was lower than the national rate.

Other findings for the core groups of Canadians who joined or contributed to nature-related organizations or who maintained, restored or purchased land for conservation include the following:

- In comparison with the general population, the 1.3 million Canadians who joined or contributed to nature-related organizations tended to be more concentrated among men, Canadians between the ages of 35 and 54, those with post-secondary education and those with personal incomes of $30,000 or more.
- The proportions joining or contributing to nature-related organizations were higher than the national rate of 5.4 percent in Ontario, the four western provinces and the Yukon. Residents of the Yukon,

Manitoba, Saskatchewan and British Columbia recorded rates of seven percent or more. The rates were lower than the national rate in the remaining provinces, with residents of Newfoundland and Quebec recording rates of three percent or less.

- The 760,000 Canadians who maintained, restored or purchased land for conservation tended to be more concentrated among men, those over 35 years of age, rural residents, those who had completed postsecondary school education and those with personal incomes of $30,000 or more in 1996.
- The proportions of provincial residents who maintained, restored or purchased land for conservation were near the national rate of 3.2 percent in most provinces. Rates somewhat higher than the national rate were recorded in the Yukon (5.1 percent) and Prince Edward Island (4.8 percent), and the lowest rate of 2.0 percent was recorded by Newfoundland residents.

Comparability with previous surveys

The questionnaire for the 1996 Survey on the Importance of Nature to Canadians included questions similar in many respects to those used in the 1981, 1987 and 1991 Surveys on the Importance of Wildlife to Canadians. For example, question wording in the sections on Trips Taken to Watch, Feed, Photograph or Study Wildlife, Fishing for Recreation, Hunting Waterfowl, Other Birds, Small Mammals and Large Mammals, and other sections in the surveys may appear to be very similar. However, as a result of changes and enhancements made to the 1996 questionnaire, differences between the 1996 and the previous surveys may be due in part to changes in the questionnaire and not necessarily to actual increases or declines in participation in those activities over time. For example, this chapter presented survey results for wildlife viewing, recreational fishing and hunting according to whether they were the main activity on trips or a secondary activity. Guidelines for taking these and other changes and enhancements to the questionnaire into account when making comparisons with the 1991 Wildlife Survey are provided in Appendix II.

3. Frequency of participation in nature-related activities by Canadians

The frequency of participating in an activity provides a measure of the contribution of nature to Canadians' enjoyment of leisure. It also serves as an indicator of the pressures placed on Canada's biological resources and ecosystems by different types of participants. In this report, two measures of the frequency of participation are discussed. The first of these that will be reported is the number of **days** spent on a given activity. One day is defined as all or any part of a calendar day (24 hours or less). The second measure of frequency that will be reported is the number of **trips** taken for a given activity. A same-day trip is defined as the number of times a participant left his or her residence for a given activity and returned on the same day. An overnight trip is defined as the number of times a participant left his or her residence for a given activity and spent at least one night away from home.

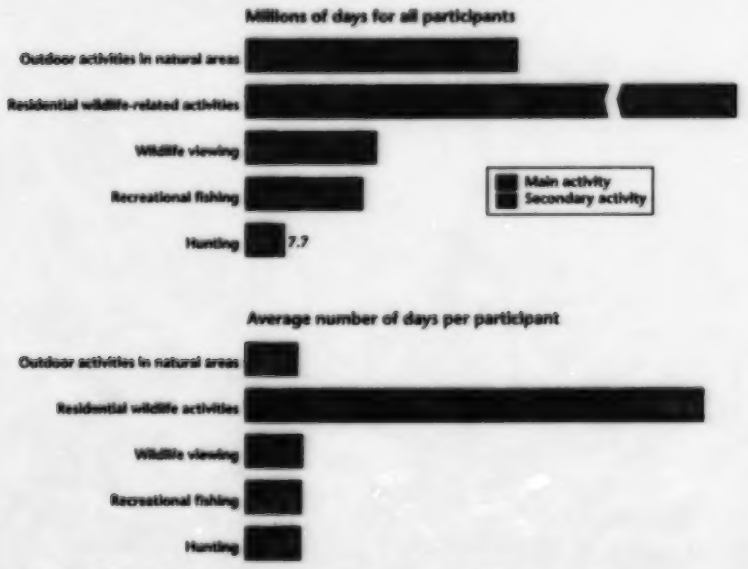
In 1996, Canadians spent an estimated 1.5 billion days enjoying one or more nature-related activities in Canada (Figure 15). The sections that follow are based on the responses of participants to questions on the days they spent on each of the following activities: outdoor activities in natural areas (section 3.1), residential wildlife-related activities (section 3.2), wildlife viewing (section 3.3), recreational fishing (section 3.4) and hunting (section 3.5). Each of these activities were defined in chapter 2.

Canadians took 191.0 million trips away from home for nature-related activities in 1996 (Figure 16). In the sections that follow, the responses of participants to questions on the trips they took for the following activities are reported: outdoor activities in natural areas (section 3.1), wildlife viewing (section 3.3), recreational fishing (section 3.4) and hunting (section 3.5).

The base for the calculation of averages presented in this chapter was participants from among the Canadian population aged 15 years and over in the 10 provinces and in organized communities in the Yukon. The responses of these provincial and territorial residents are highlighted in each section and will be covered in more detail in chapters 5 to 15. Definitions of key terms are included in Appendix I.

Figure 15

Total and average number of days on which participants engaged in nature-related activities in Canada in 1996



Note: Averages for wildlife viewing, fishing and hunting are for main and secondary activities combined.

3.1 Outdoor activities in natural areas

In 1996, Canadians recorded that they spent 166.0 million days of their time enjoying outdoor activities in the natural areas of Canada, or an average of 16.1 days per participant (Figure 15). Residents of Newfoundland, Prince Edward Island, Nova Scotia, Manitoba, British Columbia and the Yukon exceeded the national average, whereas residents of the remaining provinces were very near the national average (Figure 17).

Participants spent the majority of the 166.0 million days recorded within the borders of their province or territory of residence. The proportion of days spent within the province or territory of residence was 85 percent or more for all provinces and the Yukon, with the exception of Manitoba at 76.5 percent and Alberta with 79.2 percent.

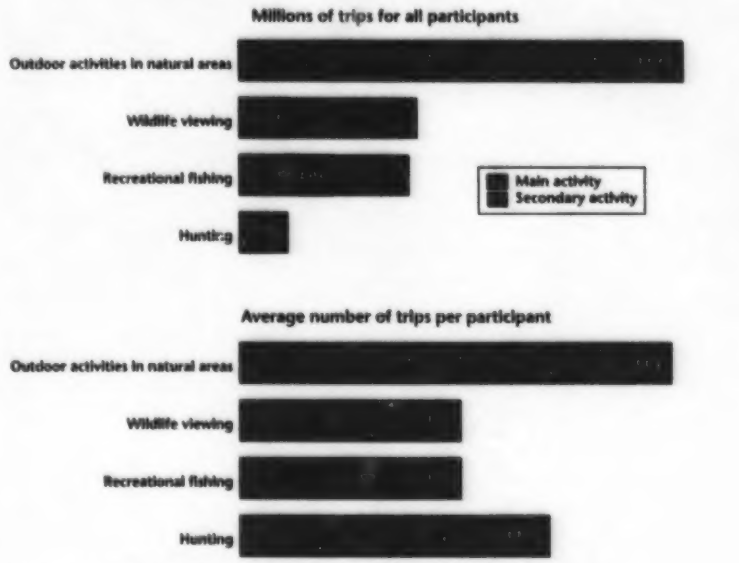
Canadians took 137.1 million trips to the natural areas of Canada for outdoor activities in 1996 (Figure 16). The majority of these trips (96.6 million or 70.4 percent of the total) were same-day trips where participants left home and returned on the same day. Participants also recorded 40.5 million overnight trips.

On average, Canadians took 13.3 trips per participant for outdoor activities during the year (Figure 16). Participants who took same-day trips averaged 12.2 same-day trips per participant, whereas participants who took overnight trips averaged 5.8 overnight trips per participant. Figure 18 shows the average number of same-day and overnight trips by province or territory of residence. Residents of the four Atlantic provinces, Quebec, British Columbia and the Yukon exceeded the national average for same-day trips, whereas residents of the remaining provinces were below the national average. It also shows that residents of all provinces were above the national average for overnight trips, with the exception of Prince Edward Island, Quebec and Alberta which were below the average.

In section 2.1, it was reported that a number of participants in outdoor activities in natural areas also took part in wildlife viewing, fishing and hunting as secondary activities. In sections 3.3, 3.4 and 3.5 of this chapter, the days spent and trips taken by participants in wildlife viewing, fishing and hunting as secondary activities are combined with those for participants in viewing, fishing and hunting as main activities to arrive at an estimate of total days and total trips for each of these activities.

FIGURE 16

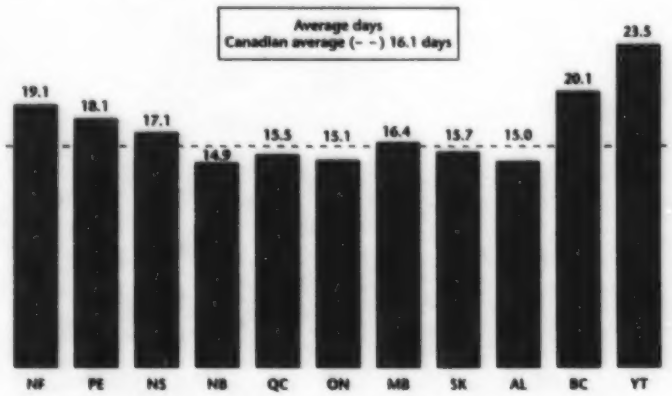
TOTAL AND AVERAGE NUMBER OF TRIPS TAKEN TO PARTICIPATE IN NATURE-RELATED ACTIVITIES IN CANADA IN 1996



Note: Averages for wildlife viewing, fishing and hunting are for main and secondary activities combined.

FIGURE 17

AVERAGE NUMBER OF DAYS ON WHICH PARTICIPANTS ENGAGED IN OUTDOOR ACTIVITIES IN NATURAL AREAS IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



Residential wildlife-related activities

In 1996, Canadians recorded that they spent approximately 1.3 billion days engaged in wildlife-related activities around their residences, an average of 140.1 days per participant (Figure 15). Residents of the four Atlantic provinces, Ontario, British Columbia and the Yukon devoted greater amounts of time than the national average to residential wildlife-related activities, whereas Canadians from Quebec and the three Prairie provinces devoted less time to these activities than the average (Figure 19).

FIGURE 18

AVERAGE NUMBER OF SAME-DAY AND OVERNIGHT TRIPS TAKEN BY PARTICIPANTS IN OUTDOOR ACTIVITIES IN NATURAL AREAS IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE

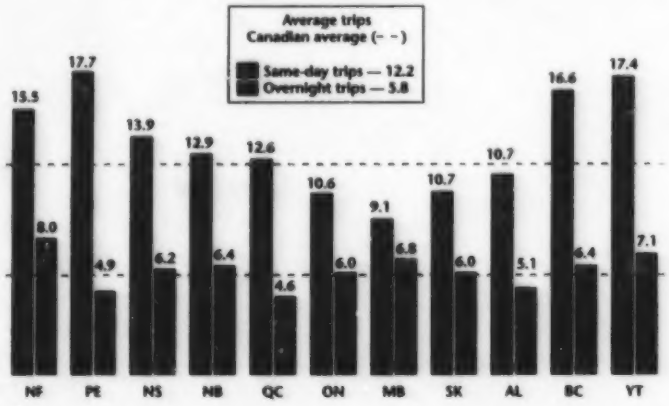
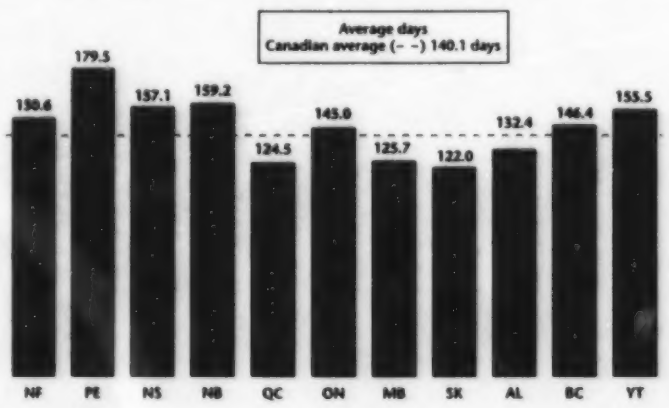


FIGURE 19

AVERAGE NUMBER OF DAYS ON WHICH PARTICIPANTS ENGAGED IN RESIDENTIAL WILDLIFE-RELATED ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



Wildlife viewing

In 1996, wildlife viewing by Canadians in Canada involved an estimated 77.4 million days, or an average of 17.6 days per participant (Figure 15). Figure 20 shows that residents of the three easternmost provinces, the three westernmost provinces and the Yukon exceeded the national average, whereas the residents of the remaining provinces were at or slightly below the national average.

Wildlife viewing by Canadians in Canada involved an estimated 55.0 million trips in 1996, or an average of 12.5 trips per participant (Figure 16). Residents of the four Atlantic provinces, Saskatchewan, Alberta, British Columbia and the Yukon were near or higher than the national average, whereas the remaining provinces were below the national average (Figure 21).

In section 2.3, two forms of wildlife viewing were distinguished: **wildlife viewing as the main activity**, and **wildlife viewing as a secondary activity**. Participants who viewed wildlife as the main activity recorded 16.4 million days of activity during the year, whereas viewing as a secondary activity was

estimated to involve 60.9 million days.[9] In terms of trips taken for wildlife viewing, participants who viewed wildlife as the main activity took 15.3 million trips in 1996, whereas viewing as a secondary activity involved 39.7 million trips.[9]

Highlights of the days spent and trips taken for wildlife viewing as the main activity include the following:

- The majority of the 16.4 million days (92.1 percent) spent wildlife viewing were within the borders of the province or territory of residence.
- The majority of the 15.3 million trips (82.1 percent) were same-day trips where participants left home and returned on the same day.

3.4

Recreational fishing

In 1996, recreational fishing by Canadians in Canada involved an estimated 72.0 million days, or an average of 17.2 days per participant (Figure 15). Residents of all provinces and the Yukon exceeded the national average, with the exception of residents of Prince Edward Island and Quebec who recorded lower averages (Figure 22).

Recreational fishing by Canadians in Canada involved an estimated 52.4 million trips in 1996, or an average of 12.5 trips per participant (Figure 16). Figure 23 shows that residents of all provinces and the Yukon were near or higher than the national average, with the exception of residents of Quebec and Manitoba who recorded lower average trips.

FIGURE 20

AVERAGE NUMBER OF DAYS THAT INVOLVED WILDLIFE VIEWING AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE

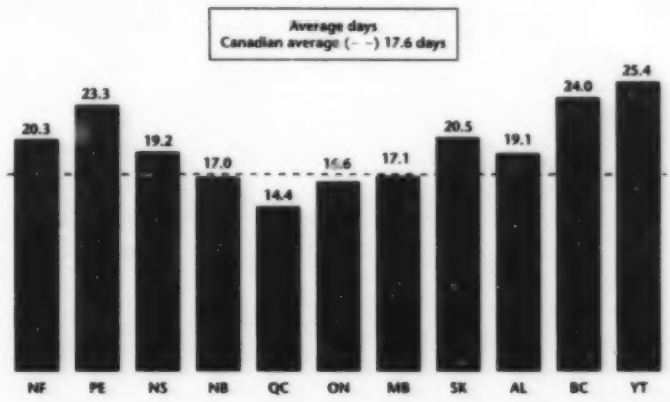
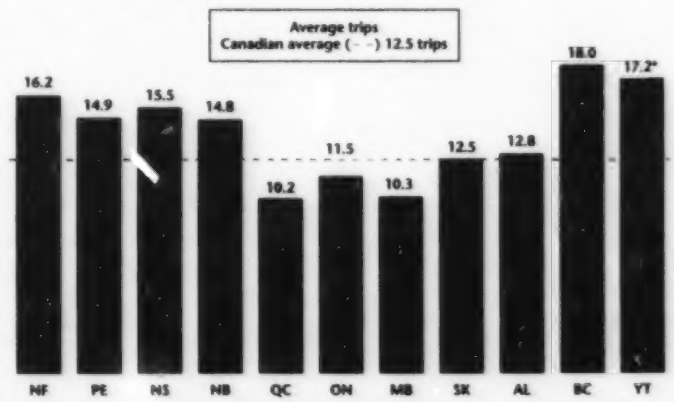


FIGURE 21

AVERAGE NUMBER OF TRIPS THAT INVOLVED WILDLIFE VIEWING AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



* See note on the statistical reliability of survey in results in section 1.3.

[9] The 60.9 million days for wildlife viewing as a secondary activity are the days reported by participants in outdoor activities in natural areas who combined secondary wildlife viewing with these activities. They are a portion of the 166.0 million days reported for outdoor activities in section 3.1. Similarly, the 39.7 million trips for wildlife viewing as a secondary activity are the trips of participants who combined outdoor activities in natural areas with wildlife viewing, and are a portion of the 137.1 million trips reported in section 3.1. These estimates, combined with those for viewing as a main activity, permit a closer estimation of the days and trips associated with wildlife viewing than would be provided by the estimates for viewing as the main activity alone. The combined estimates may be revised as a result of ongoing statistical analyses.

In section 2.4, two forms of recreational fishing were distinguished: **fishing as the main activity**, and **fishing as a secondary activity**. In terms of days spent, the survey shows that Canadians who fished as the main activity spent a total of 33.0 million days on this activity during the year, whereas fishing as a secondary activity involved 39.0 million days.[10] In terms of trips taken, the survey shows that participants in fishing as the main activity took 29.3 million trips in 1996, whereas fishing as a secondary activity involved 23.1 million trips.[10]

FIGURE 22

AVERAGE NUMBER OF DAYS THAT INVOLVED RECREATIONAL FISHING AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE

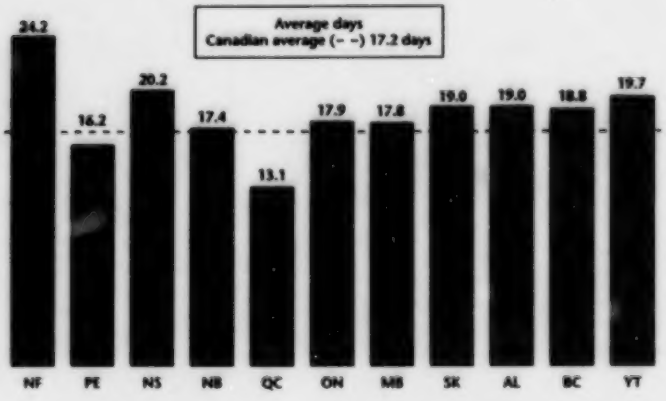
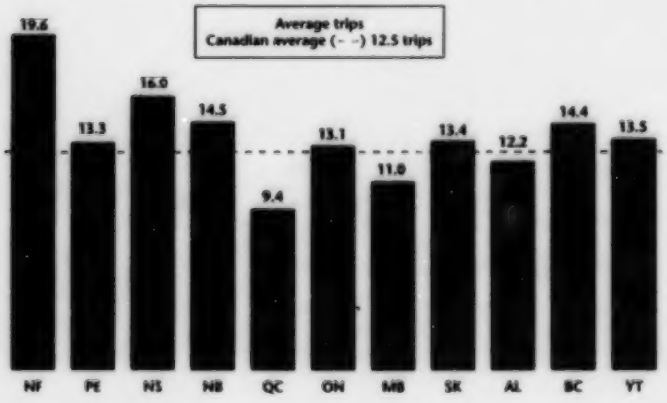


FIGURE 23

AVERAGE NUMBER OF TRIPS THAT INVOLVED RECREATIONAL FISHING AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



Highlights of days spent and trips taken for recreational fishing as the main activity include the following:

- Of the 33.0 million days spent fishing, 93.7 percent took place in fresh water, 3.9 percent in the Pacific Ocean, and 2.4 percent in the Atlantic Ocean.
- The majority of the 29.3 million trips (78.1 percent) were same-day trips where participants left home and returned on the same day.

Hunting

In 1996, hunting by Canadians in Canada involved an estimated 20.2 million days, or an average of 16.9 days per hunter (Figure 15). Residents of all provinces and the Yukon were near or higher than the national average, with the exception of Quebec and Manitoba where average days were slightly lower than the national average (Figure 24).

Hunting by Canadians in Canada involved an estimated 15.1 million trips in 1996, or an average of 12.7 trips per hunter (Figure 16). Figure 25 shows that the national average was exceeded by residents of the four Atlantic provinces, Ontario, Saskatchewan, Alberta and British Columbia, whereas residents of the remaining provinces and the Yukon recorded trips below the national average.

Section 2.5 distinguished two forms of hunting: **hunting as the main activity**, and **hunting as a secondary activity**. In terms of days spent, the survey shows

[10] See footnote 9 in Section 3.3. A similar procedure was used to estimate days and trips for recreational fishing.

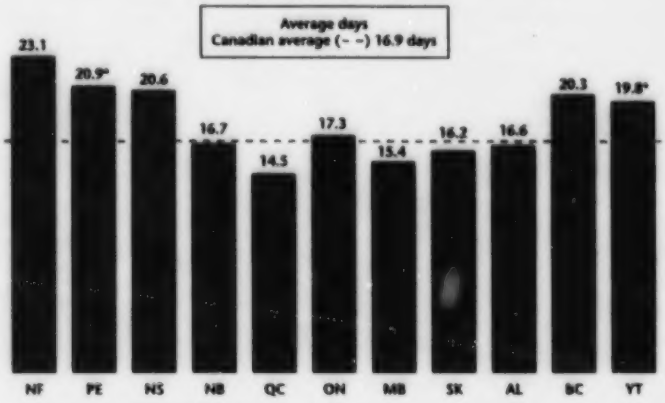
that Canadians who hunted as the main activity spent a total of 12.4 million days on this activity during the year, whereas participation in hunting as a secondary activity involved 7.7 million days.[11] In terms of trips taken, the survey shows that participants in hunting as the main activity took 9.3 million trips in 1996, whereas participation in hunting as a secondary activity involved 5.8 million trips.[11]

Highlights of the days spent and trips taken for hunting as the main activity include the following:

- These hunters spent the vast majority (over 95 percent) of the 12.4 million days recorded within the borders of their province or territory of residence.
- The greatest amount of these 12.4 million hunting days were spent hunting large game mammals (7.2 million days), followed by birds other than waterfowl (3.2 million days), small game mammals (2.5 million days) and waterfowl (2.0 million days).
- Participants hunted on an average of 12.5 days during the year. Average days were 8.3 for waterfowl hunting, 8.5 for hunting other birds, 10.7 for hunting small game mammals and 10.1 for hunting large game mammals.
- The majority of the 9.3 million hunting trips (80.3 percent) were same-day trips where participants left home and returned on the same day.
- The greatest number of the 9.3 million hunting trips were taken to hunt large game mammals (5.2 million trips), followed by birds other than waterfowl (3.0 million trips), small game mammals (2.4 million trips) and waterfowl (1.8 million trips).
- On average, participants took 9.3 trips per hunter during the year. Average trips were 7.7 for waterfowl hunting, 8.0 for the hunting of other birds, 10.6 for hunting small game mammals and 7.2 for hunting large game mammals.

FIGURE 24

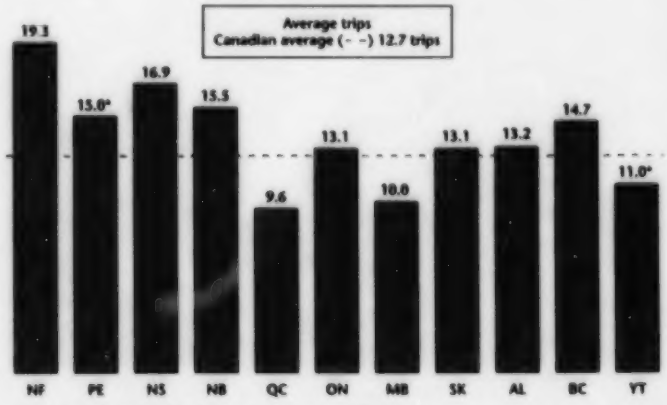
AVERAGE NUMBER OF DAYS THAT INVOLVED HUNTING WILDLIFE AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



* See note on the statistical reliability of survey results in section 1.3.

FIGURE 25

AVERAGE NUMBER OF TRIPS THAT INVOLVED HUNTING WILDLIFE AS MAIN OR SECONDARY ACTIVITIES IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



* See note on the statistical reliability of survey results in section 1.3.

[11] See footnote 9 in Section 3.3. A similar procedure was used to estimate days and trips for hunting.

Comparability with previous surveys

The questionnaire for the 1996 Survey on the Importance of Nature to Canadians included questions similar in many respects to those used in the 1981, 1987 and 1991 surveys on the importance of wildlife to Canadians. For example, question wording in the sections on Trips Taken to Watch, Feed, Photograph or Study Wildlife, Fishing for Recreation, Hunting Waterfowl, Other Birds, Small Mammals and Large Mammals, and other sections in the surveys may appear to be very similar. However, as a result of changes and enhancements made to the 1996 questionnaire, differences between the 1996 and the previous surveys may be due in part to changes in the questionnaire and not necessarily to actual increases or declines in participation in those activities over time. For example, this chapter presented survey results for wildlife viewing, recreational fishing and hunting according to whether they were the main activity on trips or a secondary activity. Guidelines for taking these and other changes and enhancements in the questionnaire into account when making comparisons with the 1991 survey are provided in Appendix II.

4. Expenditures on Nature-Related Activities by Canadians

Canadians spend money for a variety of purposes in order to take part in nature-related activities. They incur trip-related expenditures for transportation, accommodation and food. They also purchase equipment, supplies and other items needed to pursue nature-related activities, such as camping gear, outdoor clothing, boats, trucks, hunting and fishing equipment and supplies, license and entry fees, cameras and binoculars. Other examples of expenditures for nature-related activities are membership fees or donations to nature-related organizations, costs to maintain land for conservation, and purchase of feeders and feed for wildlife. A further description of expenditures that were recorded in the survey is provided in Appendix I.

In 1996, Canadians spent approximately $11.0 billion on various nature-related activities in Canada (Table 3). The total rises to $11.2 billion when expenditures by Canadians on two nature-related activities — wildlife viewing and recreational fishing — in the United States are included. Part B of this report describes survey coverage of these activities in the U.S.

Table 3

Total expenditures by participants in nature-related activities in Canada in 1996, by province or territory of residence

Province or territory	Participants' expenditures ($ millions)
Newfoundland	$193.7
Prince Edward Island	$24.6
Nova Scotia	$244.8
New Brunswick	$208.2
Quebec	$2,060.7
Ontario	$4,283.4
Manitoba	$427.6
Saskatchewan	$387.8
Alberta	$1,170.9
British Columbia	$1,938.0
Yukon	$16.0
Canada	**$10,955.7**

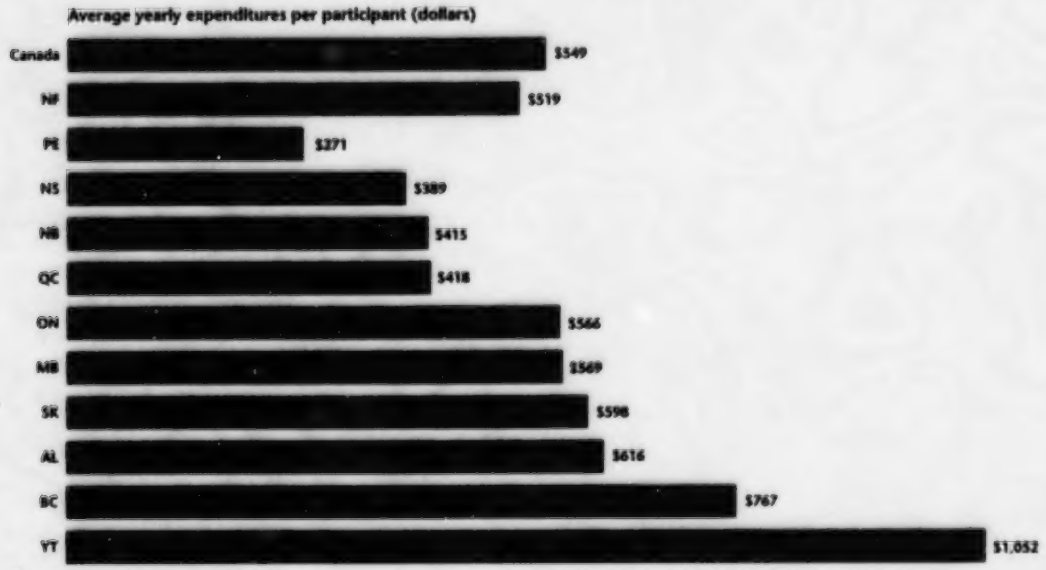
On average, Canadians spent $549 per participant on nature-related activities in Canada. Figure 26 shows that participants from Ontario and the west of Canada exceeded the national average, with residents of British Columbia and the Yukon recording the highest averages at $767 and $1,052 respectively.

Of the $11.0 billion in expenditures, approximately $3.1 billion, or 28.4 percent, was spent on equipment used primarily for nature-related activities (Figure 27). Another $2.6 billion (23.5 percent) was spent on transportation, $2.0 billion (18.4 percent) on food, $1.4 billion (12.7 percent) on accommodation and $639.8 million (5.8 percent) on other items such as entry fees. The remaining $1.2 billion (11.2 percent) was spent on contributions to nature-related organizations, sustaining land for conservation, and residential wildlife-related activities (these costs were not broken down by category). The expenditures of residents of the 10 provinces and the Yukon, and a breakdown by category of expenditure are discussed in Chapters 5 to 15.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will assess the positive impact of

FIGURE 26

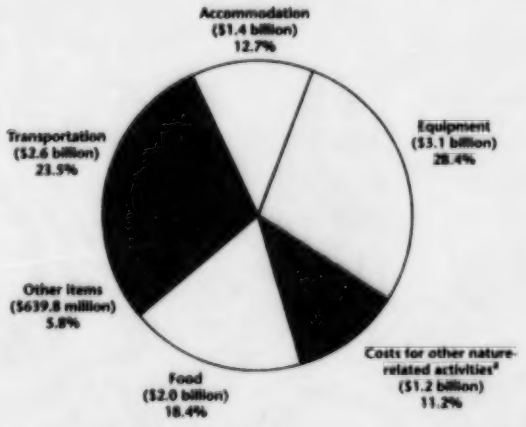
AVERAGE EXPENDITURES BY PARTICIPANTS IN NATURE-RELATED ACTIVITIES IN CANADA IN 1996, BY PROVINCE OR TERRITORY OF RESIDENCE



spending on these activities on the national, provincial and territorial economies in the form of income and jobs. Further results on expenditures for the individual nature-related activities covered by the survey will be included in that report, as will information on respondents' willingness to pay for these activities over and above their 1996 expenditures. This vital information will be used to assess the economic value stemming from Canada's natural wealth.

FIGURE 27

DISTRIBUTION OF $11.0 BILLION NATURE-RELATED EXPENDITURES IN CANADA IN 1996



[a] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

5. Nature-related activities by residents of Newfoundland

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Newfoundland residents. In 1996, an estimated 373,000 Newfoundland residents (82.7 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 206,000 residents participated in outdoor activities in natural areas, and 166,000 in residential wildlife-related activities (Table 4). Wildlife viewing attracted 78,000 participants, fishing 138,000 participants and hunting 68,000 participants. An estimated 319,000 Newfoundland residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 10,000 Newfoundland residents.

Table 4 presents an overview of the 31.7 million days on which Newfoundland residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 25.0 million days on these activities, and participants in outdoor activities in natural areas spent 3.9 million days. Wildlife viewing involved 1.6 million days, recreational fishing 3.3 million days and hunting wildlife 1.6 million days. The table also shows that Newfoundland residents took 6.2 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 3.6 million trips. Wildlife viewing involved 1.3 million trips, recreational fishing 2.7 million trips and hunting wild-life 1.3 million trips.

In 1996, Newfoundland residents spent an estimated $193.7 million on various nature-related activities in Newfoundland and other parts of Canada. The total rises to $194.7 million when expenditures by Newfoundland residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $193.7 million spent in Canada, approximately 58.9 percent went for trip-related items including transportation, accommodation and food, 29.8 percent went for special equipment and 11.3 percent went for other items needed to pursue nature-related activities (Table 5).

Additional survey results for Newfoundland residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Newfoundland residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 4

Participation, days and trips of Newfoundland participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
• Total number of participants	206,000	166,000	78,000	138,000	68,000	319,000
• Participation rate	45.6%	36.8%	17.3%	30.6%	15.1%	70.8%
• Total days	3,939,000	25,044,000	1,584,000	3,349,000	1,576,000	n/a
• Average days per participant	19.1	150.6	20.3	24.2	23.1	n/a
• Total trips	3,567,000	n/a	1,263,000	2,704,000	1,316,000	n/a
• Average trips per participant	17.3	n/a	16.2	19.6	19.3	n/a

Grand total = 373,000 participants, 31.7 million days, 6.2 million trips

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix B for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 5

Distribution of nature-related expenditures for Newfoundland in 1996

Category of expenditure	$million	%
Accommodation	14.5	7.5
Transportation	58.7	30.0
Food	40.8	21.1
Equipment	57.8	29.8
Other items	15.9*	8.2
Costs for other nature-related activities[1]	6.0	3.1
Total	**$193.7**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

6. Nature-related activities by residents of Prince Edward Island

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Prince Edward Island residents. In 1996, an 91,000 Prince Edward Island residents (85 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 40,000 residents participated in outdoor activities in natural areas, and 57,000 in residential wildlife-related activities (Table 6). Wildlife viewing attracted 13,000 participants, fishing 13,000 participants and hunting 4,000 participants. An estimated 77,000 Prince Edward Island residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 6,000 Prince Edward Island residents.

Table 6 presents an overview of the 11.2 million days on which Prince Edward Island residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 10.2 million days on these activities, and participants in outdoor activities in natural areas spent 727,000 days. Wildlife viewing involved 304,000 days, recreational fishing 216,000 days and hunting wildlife 79,000 days. The table also shows that Prince Edward Island residents took 868,000 trips for one or more nature-related activity during 1996. Participants in outdoor activities in natural areas reported taking 668,000 trips. Wildlife viewing involved 194,000 trips, recreational fishing 178,000 trips and hunting wildlife 57,000 trips.

In 1996, Prince Edward Island residents spent an estimated $24.6 million on various nature-related activities in Prince Edward Island and other parts of Canada. The total rises to $24.8 million when expenditures by Prince Edward Island residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part C of this report describes survey coverage of these activities in the U.S. Of the $24.6 million spent in Canada, approximately 54.5 percent went for trip-related items including transportation, accommodation and food, 22.5 percent went for special equipment, and 23.0 percent went for other items needed to pursue nature-related activities (Table 7).

Additional survey results for Prince Edward Island residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Prince Edward Island residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 6

Participation, days and trips of Prince Edward Island participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
• Total number of participants	40,000	57,000	13,000	13,000	4,000	77,000
• Participation rate	37.6%	53.1%	12.2%	12.5%	3.5%	71.8%
• Total days	727,000	10,213,000	304,000	216,000	79,000*	n/a
• Average days per participant	18.1	179.5	23.3	16.2	20.9	n/a
• Total trips	668,000	n/a	194,000	178,000	57,000*	n/a
• Average trips per participant	16.6	n/a	14.9	13.3	15.0	n/a
Grand total = 91,000 participants, 11.2 million days, 868,000 trips						

* See note on the statistical reliability of survey results in section 1.3.

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix B for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 7

Distribution of nature-related expenditures for Prince Edward Island in 1996

Category of expenditure	$million	%
Accommodation	2.9	11.8
Transportation	6.3	25.4
Food	4.3	17.3
Equipment	5.5*	22.5
Other items	1.5*	6.3
Costs for other nature-related activities[1]	4.1	16.7
Total	**$24.6**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

7. Nature-related activities by residents of Nova Scotia

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Nova Scotia residents. In 1996, an estimated 630,000 Nova Scotia residents (85.2 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 326,000 residents participated in outdoor activities in natural areas, and 366,000 in residential wildlife-related activities (Table 8). Wildlife viewing attracted 130,000 participants, fishing 110,000 participants and hunting 60,000 participants. An estimated 546,000 Nova Scotia residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 33,000 Nova Scotia residents.

Table 8 presents an overview of the 65.8 million days on which Nova Scotia residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 57.5 million days on these activities, and participants in outdoor activities in natural areas spent 5.6 million days. Wildlife viewing involved 2.5 million days, recreational fishing 2.2 million days and hunting wildlife 1.2 million days. The table also shows that Nova Scotia residents took 7.4 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 5.0 million trips. Wildlife viewing involved 2.0 million trips, recreational fishing 1.8 million trips and hunting wildlife 1.0 million trips.

In 1996, Nova Scotia residents spent an estimated $244.8 million on various nature-related activities in Nova Scotia and other parts of Canada. The total rises to $247.7 million when expenditures by Nova Scotia residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $244.8 million spent in Canada, approximately 60.9 percent went for trip-related items including transportation, accommodation and food, 21.1 percent went for special equipment, and 17.9 percent went for other items needed to pursue nature-related activities (Table 9).

Additional survey results for Nova Scotia residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Nova Scotia residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 8

Participation, days and trips of Nova Scotia participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
• Total number of participants	326,000	366,000	130,000	110,000	60,000	546,000
• Participation rate	44.0%	49.5%	17.6%	14.9%	8.1%	73.8%
• Total days	5,560,000	57,530,000	2,497,000	2,219,000	1,233,000	n/a
• Average days per participant	17.1	157.1	19.2	20.2	20.6	n/a
• Total trips	4,960,000	n/a	2,024,000	1,760,000	1,011,000	n/a
• Average trips per participant	15.2	n/a	15.5	16.0	16.9	n/a
Grand total = 630,000 participants, 65.8 million days, 7.4 million trips						

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 9

Distribution of nature-related expenditures for Nova Scotia in 1996

Category of expenditure	$million	%
Accommodation	26.8	10.9
Transportation	76.3	31.2
Food	46.1	18.8
Equipment	51.7	21.1
Other items	15.0	6.1
Costs for other nature-related activities[1]	28.9	11.8
Total	**$244.8**	**100%[2]**

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

8. Nature-related activities by residents of New Brunswick

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of New Brunswick residents. In 1996, an estimated 502,000 New Brunswick residents (83.3 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 266,000 residents participated in outdoor activities in natural areas, and 276,000 in residential wildlife-related activities (Table 10). Wildlife viewing attracted 115,000 participants, fishing 103,000 participants and hunting 79,000 participants. An estimated 427,000 New Brunswick residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 32,000 New Brunswick residents.

Table 10 presents an overview of the 50 million days on which New Brunswick residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 44.0 million days on these activities, and participants in outdoor activities in natural areas spent 4.0 million days. Wildlife viewing involved 1.9 million days, recreational fishing 1.8 million days and hunting wildlife 1.3 million days. The table also shows that New Brunswick residents took 5.7 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 3.9 million trips. Wildlife viewing involved 1.7 million trips, recreational fishing 1.5 million trips and hunting wildlife 1.2 million trips.

In 1996, New Brunswick residents spent an estimated $208.2 million on various nature-related activities in New Brunswick and other parts of Canada. The total rises to $209.9 million when expenditures by New Brunswick residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $208.2 million spent in Canada, approximately 51.6 percent went for trip-related items including transportation, accommodation and food, 27.3 percent went for special equipment, and 21.1 percent went for other items needed to pursue nature-related activities (Table 11).

Additional survey results for New Brunswick residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by New Brunswick residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 10

Participation, days and trips of New Brunswick participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
• Total number of participants	266,000	276,000	115,000	103,000	79,000	427,000
• Participation rate	44.1%	45.9%	19.0%	17.0%	13.1%	70.9%
• Total days	3,963,000	43,998,000	1,943,000	1,780,000	1,311,000	n/a
• Average days per participant	14.9	159.2	17.0	17.4	16.7	n/a
• Total trips	3,863,000	n/a	1,692,000	1,485,000	1,215,000	n/a
• Average trips per participant	14.5	n/a	14.8	14.5	15.5	n/a
Grand total = 502,000 participants, 50.0 million days, 5.7 million trips						

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 11

Distribution of nature-related expenditures for New Brunswick in 1996

Category of expenditure	$million	%
Accommodation	20.4	9.8
Transportation	49.3	23.7
Food	37.7	18.1
Equipment	56.9*	27.3
Other items	11.3	5.4
Costs for other nature-related activities[1]	32.6*	15.7
Total	**$208.2**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

9. Nature-related activities by residents of Quebec

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Quebec residents. In 1996, an estimated 4.9 million Quebec residents (83.5 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 2.3 million residents participated in outdoor activities in natural areas, and 1.7 million in residential wildlife-related activities (Table 12). Wildlife viewing attracted 1.2 million participants, fishing 1.0 million participants and hunting 394,000 participants. An estimated 4.4 million Quebec residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 184,000 Quebec residents.

Table 12 presents an overview of the 262.1 million days on which Quebec residents took part in nature-related activities in Canada during 1996.

Participants in residential wildlife-related activities spent 212.8 million days on these activities, and participants in outdoor activities in natural areas spent 35.4 million days. Wildlife viewing involved 17.0 million days, recreational fishing 13.6 million days and hunting wildlife 5.7 million days. The table also shows that Quebec residents took 42.0 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 30.4 million trips. Wildlife viewing involved 12.0 million trips, recreational fishing 9.8 million trips and hunting wildlife 3.8 million trips.

In 1996, Quebec residents spent an estimated $2,060.7 million on various nature-related activities in Quebec and other parts of Canada. The total rises to $2,105.3 million when expenditures by Quebec residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $2,060.7 million spent in Canada, approximately 55.1 percent went for trip-related items including transportation, accommodation and food, 28.1 percent went for special equipment, and 16.7 percent went for other items needed to pursue nature-related activities (Table 13).

Additional survey results for Quebec residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Quebec residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 12

Participation, days and trips of Quebec participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
Participation						
• Total number of participants	2,281,000	1,709,000	1,174,000	1,037,000	394,000	4,369,000
• Participation rate	38.6%	28.9%	19.9%	17.6%	6.7%	74.0%
Days						
• Total days	35,403,000	212,805,000	16,961,000	13,639,000	5,704,000	n/a
• Average days per participant	15.5	124.5	14.4	13.1	14.5	n/a
Trips						
• Total trips	30,431,000	n/a	11,982,000	9,755,000	3,759,000	n/a
• Average trips per participant	13.3	n/a	10.2	9.4	9.6	n/a
Grand total = 4.9 million participants, 262.1 million days, 42.0 million trips						

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 13

Distribution of nature-related expenditures for Quebec in 1996

Category of expenditure	$million	%
Accommodation	317.4	15.4
Transportation	417.8	20.3
Food	400.8	19.4
Equipment	579.3	28.1
Other items	112.3	5.4
Costs for other nature-related activities[1]	233.1*	11.3
Total	**$2,060.7**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

10. Nature-related activities by residents of Ontario

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Ontario residents. In 1996, an estimated 7.6 million Ontario residents (84.8 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 3.9 million residents participated in outdoor activities in natural areas, and 3.8 million in residential wildlife-related activities (Table 14). Wildlife viewing attracted 1.6 million participants, fishing 1.5 million participants and hunting 314,000 participants. An estimated 6.6 million Ontario residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 529,000 Ontario residents.

Table 14 presents an overview of the 634.4 million days on which Ontario residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 554.0 million days on these activities, and participants in outdoor activities in natural areas spent 58.5 million days. Wildlife viewing involved 25.9 million days, recreational fishing 27.4 million days and hunting wildlife 5.4 million days. The table also shows that Ontario residents took 66.3 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 46.9 million trips. Wildlife viewing involved 18.0 million trips, recreational fishing 20.1 million trips and hunting wildlife 4.1 million trips.

In 1996, Ontario residents spent an estimated $4,283.4 million on various nature-related activities in Ontario and other parts of Canada. The total rises to $4,392.1 million when expenditures by Ontario residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $4,283.4 million spent in Canada, approximately 54.9 percent went for trip-related items including transportation, accommodation and food, 26.5 percent went for special equipment, and 18.7 percent went for other items needed to pursue nature-related activities (Table 15).

Additional survey results for Ontario residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Ontario residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 14

Participation, days and trips of Ontario participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
• Total number of participants	3,878,000	3,822,000	1,561,000	1,536,000	314,000	6,599,000
• Participation rate	43.4%	42.8%	17.5%	17.2%	3.5%	73.9%
• Total days	58,525,000	553,975,000	25,869,000	27,432,000	5,413,000	n/a
• Average days per participant	15.1	145.0	16.6	17.9	17.3	n/a
• Total trips	46,910,000	n/a	17,989,000	20,117,000	4,123,000	n/a
• Average trips per participant	12.1	n/a	11.5	13.1	13.1	n/a
Grand total = 7.6 million participants, 634.4 million days, 66.3 million trips						

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 15

Distribution of nature-related expenditures for Ontario in 1996

Category of expenditure	$million	%
Accommodation	598.8	14.0
Transportation	991.7	23.2
Food	756.4	17.7
Equipment	1,136.1	26.5
Other items	218.9	5.1
Costs for other nature-related activities[1]	581.5*	13.6
Total	**$4,283.4**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

11. Nature-related activities by residents of Manitoba

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Manitoba residents. In 1996, an estimated 751,000 Manitoba residents (87.4 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 405,000 residents participated in outdoor activities in natural areas, and 320,000 in residential wildlife-related activities (Table 16). Wildlife viewing attracted 163,000 participants, fishing 170,000 participants and hunting 42,000 participants. An estimated 678,000 Manitoba residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 66,000 Manitoba residents.

Table 16 presents an overview of the 48.8 million days on which Manitoba residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 40.3 million days on these activities, and participants in outdoor activities in natural areas spent 6.7 million days. Wildlife viewing involved 2.8 million days, recreational fishing 3.0 million days and hunting wildlife 655,000 days. The table also shows that Manitoba residents took 6.3 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 4.6 million trips. Wildlife viewing involved 1.7 million trips, recreational fishing 1.9 million trips and hunting wildlife 423,000 trips.

In 1996, Manitoba residents spent an estimated $427.6 million on various nature-related activities in Manitoba and other parts of Canada. The total rises to $431.8 million when expenditures by Manitoba residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $427.6 million spent in Canada, approximately 52.0 percent went for trip-related items including transportation, accommodation and food, 38.1 percent went for special equipment, and 9.8 percent went for other items needed to pursue nature-related activities (Table 17).

Additional survey results for Manitoba residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Manitoba residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from enjoyment of nature.

Table 16

Participation, days and trips of Manitoba participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
Participation						
• Total number of participants	405,000	320,000	163,000	170,000	42,000	678,000
• Participation rate	47.1%	37.3%	19.0%	19.8%	4.9%	78.9%
Days						
• Total days	6,653,000	40,277,000	2,800,000	3,038,000	655,000*	n/a
• Average days per participant	16.4	125.7	17.1	17.8	15.4	n/a
Trips						
• Total trips	4,565,000	n/a	1,685,000	1,876,000	423,000	n/a
• Average trips per participant	11.3	n/a	10.3	11.0	10.0	n/a
Grand total = 751,000 participants, 48.8 million days, 6.3 million trips						

* See note on the statistical reliability of survey results in section 1.3.

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 17

Distribution of nature-related expenditures for Manitoba in 1996

Category of expenditure	$million	%
Accommodation	46.9	11.0
Transportation	94.5	22.1
Food	81.0	18.9
Equipment	163.1*	38.1
Other items	21.0	4.9
Costs for other nature-related activities[1]	21.1	4.9
Total	**$427.6**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

12. Nature-related activities by residents of Saskatchewan

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Saskatchewan residents. In 1996, an estimated 648,000 Saskatchewan residents (85.6 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 346,000 residents participated in outdoor activities in natural areas, and 273,000 in residential wildlife-related activities (Table 18). Wildlife viewing attracted 115,000 participants, fishing 171,000 participants and hunting 47,000 participants. An estimated 562,000 Saskatchewan residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 58,000 Saskatchewan residents.

Table 18 presents an overview of the 41.0 million days on which Saskatchewan residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 33.3 million days on these activities, and participants in outdoor activities in natural areas spent 5.4 million days. Wildlife viewing involved 2.4 million days, recreational fishing 3.3 million days and hunting wildlife 756,000 days. The table also shows that Saskatchewan residents took 6.1 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 4.1 million trips. Wildlife viewing involved 1.4 million trips, recreational fishing 2.3 million trips and hunting wildlife 610,000 trips.

In 1996, Saskatchewan residents spent an estimated $387.8 million on various nature-related activities in Saskatchewan and other parts of Canada. The total rises to $391.2 million when expenditures by Saskatchewan residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $387.8 million spent in Canada, approximately 53.0 percent went for trip-related items including transportation, accommodation and food, 35.5 percent went for special equipment, and 11.6 percent went for other items needed to pursue nature-related activities (Table 19).

Additional survey results for Saskatchewan residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Saskatchewan residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 18

Participation, days and trips of Saskatchewan participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
• Total number of participants	346,000	273,000	115,000	171,000	47,000	562,000
• Participation rate	45.6%	36.1%	15.1%	22.6%	6.2%	74.2%
• Total days	5,432,000	33,321,000	2,352,000	3,260,000	756,000	n/a
• Average days per participant	15.7	122.0	20.5	19.0	16.2	n/a
• Total trips	4,132,000	n/a	1,435,000	2,296,000	610,000	n/a
• Average trips per participant	12.0	n/a	12.5	13.4	13.1	n/a

Grand total = 648,000 participants, 41.0 million days, 6.1 million trips

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 19

Distribution of nature-related expenditures for Saskatchewan in 1996

Category of expenditure	$million	%
Accommodation	46.4	12.0
Transportation	92.1	23.8
Food	66.5	17.2
Equipment	137.8	35.5
Other items	22.7	5.9
Costs for other nature-related activities[1]	22.2	5.7
Total	**$387.8**	**100%[2]**

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

13. Nature-related activities by residents of Alberta

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Alberta residents. In 1996, an estimated 1.9 million Alberta residents (88.9 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 1.1 million residents participated in outdoor activities in natural areas, and 779,000 in residential wildlife-related activities (Table 20). Wildlife viewing attracted 397,000 participants, fishing 361,000 participants and hunting 84,000 participants. An estimated 1.7 million Alberta residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 142,000 Alberta residents.

Table 20 presents an overview of the 124.6 million days on which Alberta residents took part in nature-related activities in Canada during 1996.

Participants in residential wildlife-related activities spent 103.1 million days on these activities, and participants in outdoor activities in natural areas spent 16.2 million days. Wildlife viewing involved 7.6 million days, recreational fishing 6.9 million days and hunting wildlife 1.4 million days. The table also shows that Alberta residents took 16.4 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 12.0 million trips. Wildlife viewing involved 5.1 million trips, recreational fishing 4.4 million trips and hunting wildlife 1.1 million trips.

In 1996, Alberta residents spent an estimated $1,170.9 million on various nature-related activities in Alberta and other parts of Canada. The total rises to $1,188.7 million when expenditures by Alberta residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $1,170.9 million spent in Canada, approximately 57.4 percent went for trip-related items including transportation, accommodation and food, 29.8 percent went for special equipment, and 12.8 percent went for other items needed to pursue nature-related activities (Table 21).

Additional survey results for Alberta residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Alberta residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 20

Participation, days and trips of Alberta participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
Participation						
• Total number of participants	1,079,000	779,000	397,000	361,000	84,000	1,728,000
• Participation rate	50.5%	36.4%	18.6%	16.9%	3.9%	80.9%
Days						
• Total days	16,154,000	103,118,000	7,572,000	6,851,000	1,398,000	n/a
• Average days per participant	15.0	132.4	19.1	19.0	16.6	n/a
Trips						
• Total trips	11,959,000	n/a	5,092,000	4,419,000	1,114,000	n/a
• Average trips per participant	11.1	n/a	12.8	12.2	13.2	n/a

Grand total = 1.9 million participants, 124.6 million days, 16.4 million trips

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 21

Distribution of nature-related expenditures for Alberta in 1996

Category of expenditure	$million	%
Accommodation	149.0	12.7
Transportation	300.0	25.6
Food	223.3	19.1
Equipment	349.2	29.8
Other items	79.3	6.8
Costs for other nature-related activities[1]	70.2*	6.0
Total	**$1,170.9**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

14. Nature-related activities by residents of British Columbia

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of British Columbia residents. In 1996, an estimated 2.5 million British Columbia residents (82.2 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 1.5 million residents participated in outdoor activities in natural areas, and 1.3 million in residential wildlife-related activities (Table 22). Wildlife viewing attracted 639,000 participants, fishing 537,000 participants and hunting 98,000 participants. An estimated 2.2 million British Columbia residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 215,000 British Columbia residents.

Table 22 presents an overview of the 221.6 million days on which British Columbia residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 183.4 million days on these activities, and participants in outdoor activities in natural areas spent 29.4 million days. Wildlife viewing involved 15.3 million days, recreational fishing 10.1 million days and hunting wildlife 2.0 million days. The table also shows that British Columbia residents took 33.6 million trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 25.9 million trips. Wildlife viewing involved 11.5 million trips, recreational fishing 7.7 million trips and hunting wildlife 1.4 million trips.

In 1996, British Columbia residents spent an estimated $1,938 million on various nature-related activities in British Columbia and other parts of Canada. The total rises to $1,988.2 million when expenditures by British Columbia residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $1,938 million spent in Canada, approximately 51.7 percent went for trip-related items including transportation, accommodation and food, 29.5 percent went for special equipment, and 18.9 percent went for other items needed to pursue nature-related activities (Table 23).

Additional survey results for British Columbia residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by British Columbia residents on individual activities and the impacts of this spending on the provincial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 22

Participation, days and trips of British Columbia participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
Participation						
• Total number of participants	1,460,000	1,253,000	639,000	537,000	98,000	2,244,000
• Participation rate	47.5%	40.8%	20.8%	17.5%	3.2%	73.0%
Days						
• Total days	29,403,000	183,405,000	15,333,000	10,090,000	1,990,000	n/a
• Average days per participant	20.1	146.4	24.0	18.8	20.3	n/a
Trips						
• Total trips	25,912,000	n/a	11,526,000	7,710,000	1,440,000	n/a
• Average trips per participant	17.7	n/a	18.0	14.4	14.7	n/a
Grand total = 2.5 million participants, 221.6 million days, 33.6 million trips						

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix B for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 23

Distribution of nature-related expenditures for British Columbia in 1996

Category of expenditure	$million	%
Accommodation	172.2	8.9
Transportation	479.2	24.7
Food	350.4	18.1
Equipment	571.1	29.5
Other items	140.7*	7.3
Costs for other nature-related activities[1]	224.4*	11.6
Total	**$1,938.0**	**100%**[2]

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

15. Nature-related activities by residents of the Yukon

The Survey on the Importance of Nature to Canadians shows that the natural environment enhances the daily lives of Yukon residents. In 1996, an estimated 15,000 Yukon residents (76.9 percent of the population aged 15 years and over) participated in a wide range of nature-related activities. An estimated 8,900 residents participated in outdoor activities in natural areas, and 8,200 in residential wildlife-related activities (Table 24). Wildlife viewing attracted 5,500 participants, fishing 6,400 participants and hunting 2,200 participants. An estimated 11,000 Yukon residents took part in indirect nature-related activities. One of these indirect activities — joining or contributing to nature-related organizations — was reported by 1,700 Yukon residents.

Table 24 presents an overview of the 1.6 million days on which Yukon residents took part in nature-related activities in Canada during 1996. Participants in residential wildlife-related activities spent 1.3 million days on these activities, and participants in outdoor activities in natural areas spent 211,000 days. Wildlife viewing involved 140,000 days, recreational fishing 125,000 days and hunting wildlife 43,000 days. The table also shows that Yukon residents took 232,000 trips for one or more nature-related activities during 1996. Participants in outdoor activities in natural areas reported taking 162,000 trips. Wildlife viewing involved 95,000 trips, recreational fishing 86,000 trips and hunting wildlife 24,000 trips.

In 1996, Yukon residents spent an estimated $16.0 million on various nature-related activities in the Yukon and other parts of Canada. The total rises to $17.5 million when expenditures by Yukon residents on two nature-related activities — wildlife viewing and recreational fishing — in the United States, are included. Part B of this report describes survey coverage of these activities in the U.S. Of the $16.0 million spent in Canada, approximately 51.1 percent went for trip-related items including transportation, accommodation and food, 37.5 percent went for special equipment, and 11.4 percent went for other items needed to pursue nature-related activities (Table 25).

Additional survey results for Yukon residents in comparison to those from other parts of Canada are presented in Parts A, B and C of this report.

The next report in the Nature Survey series will focus on the economic significance of nature-related activities. It will include further details on expenditures by Yukon residents on individual activities and the impacts of this spending on the territorial economy in the form of income and jobs. Survey information on respondents' willingness to pay more for these activities will be used to assess the economic value stemming from the enjoyment of nature.

Table 24

Participation, days and trips of Yukon participants in nature-related activities in 1996

	Outdoor activities in natural areas	Residential wildlife-related activities	Wildlife viewing[1]	Recreational fishing[1]	Hunting[1]	Indirect nature-related activities
Participation						
• Total number of participants	8,900	8,200	5,500	6,400	2,200	11,000
• Participation rate	45.3%	41.3%	27.9%	32.2%	11.0%	57.6%
Days						
• Total days	211,000	1,267,000	140,000	125,000	43,000*	n/a
• Average days per participant	23.5	155.5	25.4	19.7	19.8	n/a
Trips						
• Total trips	162,000	n/a	95,000*	86,000	24,000*	n/a
• Average trips per participant	18.1	n/a	17.2	13.5	11.0	n/a
Grand total = 15,000 participants, 1.6 million days, 232,000 trips						

* See note on the statistical reliability of survey results in section 1.3.

[1] These estimates include wildlife viewing, fishing and hunting as main and secondary activities combined, as described in Chapters 2 and 3. As a result, the total participants, days and trips presented at the bottom of the table are less than the sum for the individual activities. See Appendix II for guidelines on comparing results on wildlife viewing, fishing and hunting with those from the 1991 Survey on the Importance of Wildlife to Canadians.

Table 25

Distribution of nature-related expenditures for the Yukon in 1996

Category of expenditure	$million	%
Accommodation	0.9	5.6
Transportation	4.6	28.8
Food	2.7	16.7
Equipment	6.0*	37.5
Other items	1.0*	6.4
Costs for other nature-related activities[1]	0.8*	5.0
Total	**$16.0**	**100%[2]**

* See note on the statistical reliability of survey results in section 1.3.

[1] Costs for other nature-related activities include expenditures on maintaining land for conservation, nature-related organizations and residential activities. Data on these activities were not broken down by expenditure category.

[2] Some figures may not total perfectly because of rounding.

PART B

FISH- AND WILDLIFE-BASED TOURISM BETWEEN CANADA AND THE UNITED STATES

Survey results show that although Canadians enjoyed most of their wildlife viewing and recreational fishing within the borders of Canada, a number also traveled to the United States to do so.[12] A similar survey by the U.S. Fish and Wildlife Service,[13] which asked Americans about trips taken to Canada for wildlife viewing or for recreational fishing, shows that many Americans visited Canada for its fish and wildlife. Results from these two surveys on fish- and wildlife-based tourism between Canada and the United States are reported below in a comparative manner. They reveal, among other things, that the flow of visitors into Canada and the associated time and money spent were significantly greater than the flow out in 1996.

16. A COMPARISON OF FISH- AND WILDLIFE-BASED TOURISM BETWEEN CANADA AND THE UNITED STATES

In 1996, many more Americans traveled to Canada for fish- and wildlife-based tourism than did Canadians to the United States. Figure 28 shows that 1.1 million U.S. tourists came to Canada for wildlife viewing or recreational fishing in 1996, whereas 438,000 Canadians went to the United States for these activities.

While in Canada, the U.S. tourists spent nearly twice as many days as the Canadians visiting the United States. The U.S. tourists spent a total of 6.0 million days in Canada, whereas the Canadian travelers spent 3.5 million days in the United States.

A comparison of the surveys also reveals that, while in Canada, the U.S. tourists spent three times as much money as the Canadians visiting the United States for this purpose. The U.S. tourists in Canada spent $705.3 million, in contrast to the $236.1 million spent by Canadian tourists in the United States (in 1996 Canadian dollars).

Highlights of survey results for the 1.1 million U.S. visitors who came to Canada for wildlife viewing or recreational fishing include the following:

- Wildlife viewing attracted 526,000 U.S. visitors to Canada and recreational fishing attracted 542,000 visitors. About half of the days and expenditures were spent on wildlife viewing and half on recreational fishing in Canada.

[12] Hunting wildlife in the U.S. was not covered in the 1996 Nature Survey since results from the 1991 Wildlife Survey revealed that few Canadians went hunting in the U.S.

[13] See reference 15 in Appendix III. Hunting wildlife in Canada was not covered in the 1996 U.S. survey since the 1991 survey had revealed that few Americans traveled to Canada to hunt.

- Most of the U.S. visitors went to two provinces — Ontario (50.0 percent of U.S. visitors) and British Columbia (20.9 percent of U.S. visitors). Ontario was a particularly attractive destination for recreational fishing.
- Three categories of expenditure accounted for 85.6 percent of the $705.3 million spent by U.S. visitors in Canada. Lodging accounted for 38.9 percent of expenditures, food and beverages for 25.2 percent and transportation for 21.5 percent. The remaining 14.4 percent of expenditures went for fees for guides, packages and land access, boating costs for anglers, equipment rental and purchases, and other items.

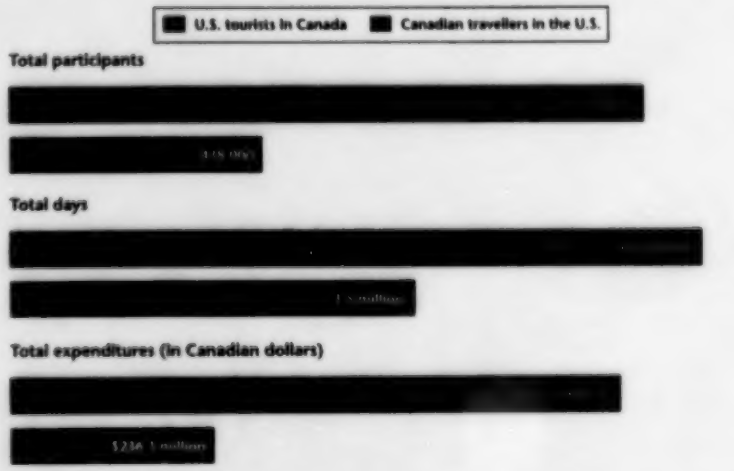
Highlights of survey results for the 438,000 Canadians who traveled to the U.S. for wildlife viewing and fishing include the following:

- Wildlife viewing was the reason 331,000 Canadians took trips to the U.S.; recreational fishing was the reason 142,000 took trips. About three-quarters of days and expenditures were spent on wildlife viewing and one-quarter on recreational fishing.
- The American states to which Canadians went the most were Florida, Washington and New York.
- Most Canadians who traveled to the United States for wildlife viewing came from three provinces — Ontario (42.7 percent of travelers), Quebec (25.5 percent), or British Columbia (21.1 percent). Similar provincial origins were observed for Canadians who took recreational fishing trips to the United States.

Tourism surveys have demonstrated that for tourism in general many more Canadians travel to the United States than do Americans to Canada, and Canadian tourists spend considerably greater amounts of time and money on these trips to the United States than do U.S. tourists in Canada. On the basis of the survey results described above, it can be concluded that the reverse is the case for fish- and wildlife-based tourism. Many more Americans come to Canada for its fish and wildlife than the reverse, and the spending of Canadians who travel to the United States for its fish and wildlife is greatly exceeded by the spending of Americans who come to Canada for fish- and wildlife-based tourism.

FIGURE 28

THE FLOW OF FISH- AND WILDLIFE-BASED TOURISM BETWEEN CANADA AND THE UNITED STATES IN 1996



PART C

INTEREST IN PARTICIPATING IN NATURE-RELATED ACTIVITIES

Whether current rates of participation in nature-related activities will change in the future was addressed in part in the Nature Survey. There are many indicators that must be monitored when assessing future rates of participation in nature-related activities, such as changes in the abundance of natural areas and wildlife, the age structure of the Canadian population and income levels, among others. The survey contributed to the assessment of the likelihood of current rates of participation continuing into the future by asking Canadians about their degree of interest in participating in nature-related activities or, if they already participated, the interest they had in continuing to do so.

Respondents were asked to indicate if they would be interested in participating in outdoor activities in natural areas such as camping and boating. They were also asked about their interest in participating in watching, feeding, photographing or studying wildlife. In a similar manner, respondents were asked about their interest in participating in the consumptive activities of hunting and fishing, and in joining or contributing to nature-related organizations such as naturalist, conservation or sportsmen's clubs.

This part of the report presents the responses of Canadians to these questions. It contrasts the resulting rates for this "potential participation" with the rates for "active participation" reported in Part A. This line of inquiry permits an assessment of the likelihood of current rates of participation continuing into the future based on the degree of interest expressed in participation. For example, participation rates in nature-related organizations, hunting and fishing could more than double if current levels were maintained and if, in addition, non-participants who expressed interest in participating were to do so. The findings in this chapter demonstrate that it is important to Canadians to have the option of participating in nature-related activities in the future.

17. Active and potential participation in nature related activities

Outdoor activities in natural areas

Nearly three-quarters of Canadians (74.0 percent of the population) indicated great or some interest in participating in outdoor activities in natural areas such as camping, picnicking, hiking, riding, cycling, skiing, snowshoeing, off-road vehicle use, swimming or boating (Figure 29). Interest was high across Canada. Approximately 70 percent or more of residents of each of the 10 provinces and the Yukon expressed interest in participating in these activities.

In section 2.1, the participation rate in outdoor activities in natural areas was reported as 43.7 percent of the population. By comparing this rate of active participation with the level of potential participation in these activities of 74.0 percent of Canadians, we are led to the observation that the level of potential participation was over one and a half times higher than the rate of active participation in 1996. Thus, we can say that there is some potential for gains to be made in participation in these activities. The pattern of active versus potential participation in outdoor activities in natural areas was evident in all provinces.

Watching, photographing, studying or feeding wildlife

Approximately 57 percent of Canadians expressed an interest in participating in watching, photographing, studying or feeding wildlife (Figure 30). Interest was consistently high across the country, with 52 percent or more of residents of each of the 10 provinces and the Yukon expressing an interest in participation in these activities.

Figure 29

Percentage of Canadians expressing great or some interest in participating in outdoor activities in natural areas, by province or territory of residence

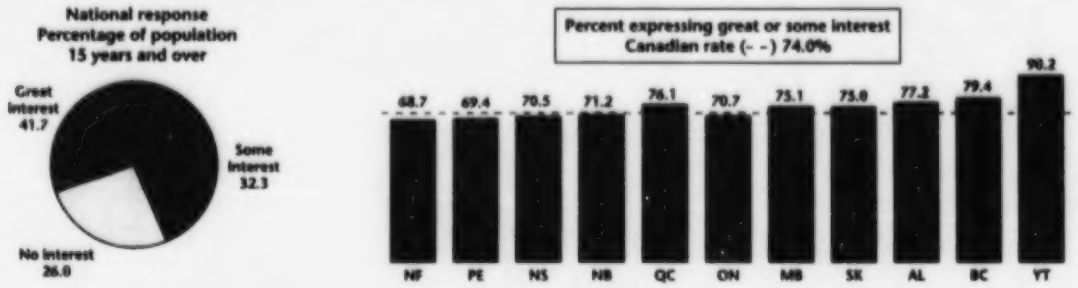
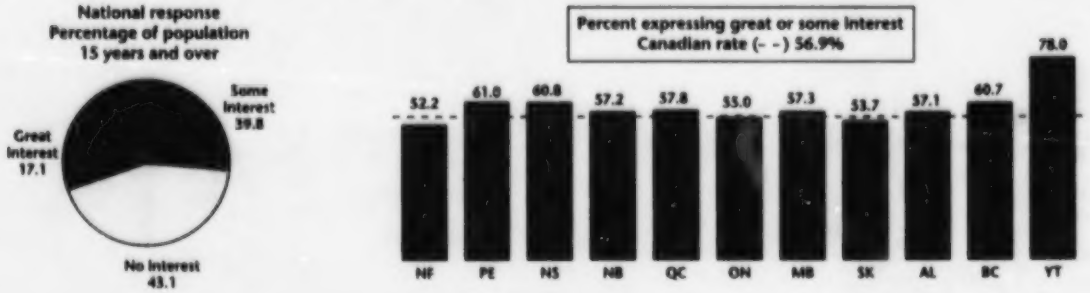


Figure 30

Percentage of Canadians expressing great or some interest in participating in watching, photographing, studying or feeding wildlife, by province or territory of residence



In 1996, 44.9 percent of Canadians actively participated in watching, photographing, studying or feeding wildlife around their homes or on trips. Thus, at the national level, it would appear that though much of the potential for participation in these activities has already been realized, there remains some potential for increases in participation. This pattern was observed in all provinces, with the participation rate being fairly close to the level of interest expressed in participating, except for Quebec and the Yukon where greater gains could be realized.

Recreational fishing

Nearly 40 percent of Canadians expressed great or some interest in participating in recreational fishing (Figure 31). Interest was highest in Newfoundland, Saskatchewan and the Yukon at rates in excess of 49 percent. The remaining provinces showed rates of interest between about 37 and 44 percent.

The rate of active participation in recreational fishing was 17.7 percent in 1996 (Section 2.5). By comparing this rate with the 39.8 percent of Canadians indicating an interest in participating in fishing, we observe that the level of interest in participation was over twice as high as the rate of active participation. In all provinces, the levels of potential participation were twice as high as the active participation rates, indicating a substantial growth potential for this activity.

Hunting

Approximately 11 percent of Canadians showed great or some interest in participating in hunting (Figure 32). Interest varied considerably among residents of the 10 provinces and the Yukon. Interest was highest among residents of Newfoundland, New Brunswick and the Yukon, at rates in excess of 20 percent. All other provinces showed levels of interest between about 9 and 17 percent.

In section 2.4, the rate of active participation in hunting during 1996 was reported. By comparing the participation rate of 5.1 percent of the population with the level of interest in participating in hunting of 10.6 percent, we are led to the observation that the level of interest in participating was twice as high as the rate of active participation in 1996.

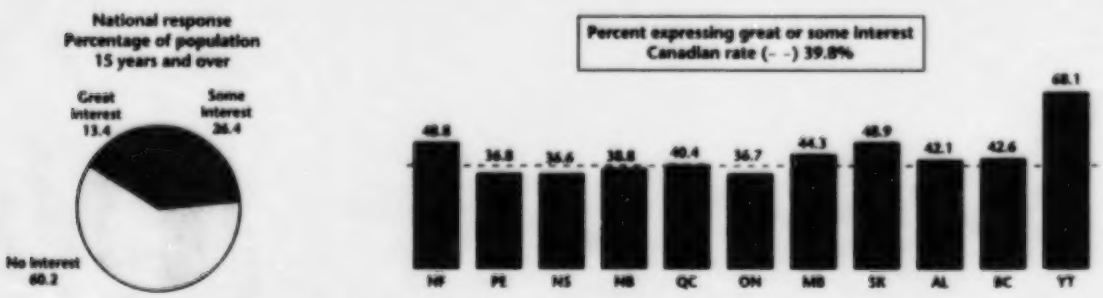
In all provinces and the Yukon, interest in participating was between one and one half and three times as high as active participation. The greatest potential gains to be made in participation in these activities are in Alberta, British Columbia and the Yukon, with about three times as many residents expressing an interest in participating in hunting as actively hunted in 1996.

Nature-related organizations

Nearly one quarter of Canadians indicated great or some interest in joining or contributing to a nature-related organization (Figure 33). The highest levels of support for these organizations was expressed by residents of New Brunswick and the Yukon, at 41.8 and 33.8 percent respectively.

FIGURE 31

PERCENTAGE OF CANADIANS EXPRESSING GREAT OR SOME INTEREST IN PARTICIPATING IN RECREATIONAL FISHING, BY PROVINCE OR TERRITORY OF RESIDENCE



Rates were close to the average in the remaining provinces, with the exception of Newfoundland, Prince Edward Island and Nova Scotia with slightly lower rates of about 20 percent each.

By comparing the rate of active involvement in nature-related organizations of 5.4 percent with the level of potential involvement of 24.4 percent of Canadians, we observe that the level of potential involvement was over four times higher than the rate of active involvement in 1996.

Thus, we can say that there are great potential gains to be made in support of these organizations. The pattern of active versus potential support for nature-related organizations was evident in all provinces.

Comparability with previous survey

In comparing the 1991 Wildlife Survey and 1996 Nature Survey, similar patterns of active versus potential participation are observed for wildlife viewing, fishing and hunting. It appears that in 1996 as in 1991, a large amount of the potential for participation in wildlife viewing activities has been realized, whereas there are potential gains to be made in participation in hunting and recreational fishing. The enormous growth potential for involvement in nature-related organizations such as naturalist groups identified in the 1991 survey was also demonstrated in the 1996 survey.

FIGURE 32

PERCENTAGE OF CANADIANS EXPRESSING GREAT OR SOME INTEREST IN PARTICIPATING IN HUNTING, BY PROVINCE OR TERRITORY OF RESIDENCE

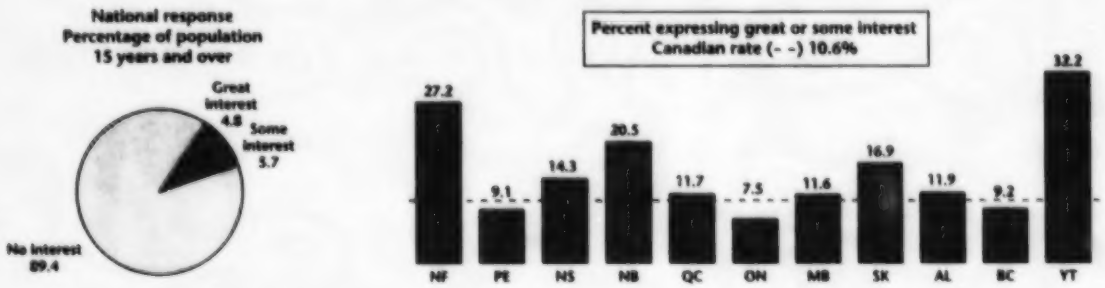
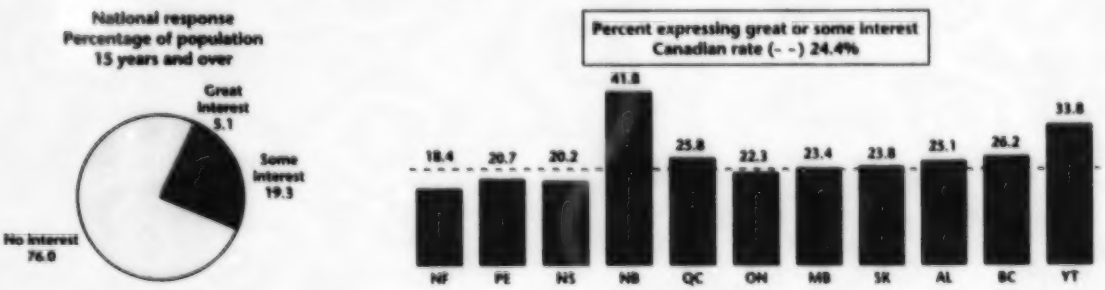


FIGURE 33

PERCENTAGE OF CANADIANS EXPRESSING GREAT OR SOME INTEREST IN PARTICIPATING IN NATURE-RELATED ORGANIZATIONS, BY PROVINCE OR TERRITORY OF RESIDENCE



PART D
CONCLUSION AND POLICY IMPLICATIONS

The results from the Statistics Canada Survey on the Importance of Nature to Canadians constitute an important source of information on the socioeconomic benefits of Canada's natural wealth. The Nature Survey partnership has made a unique contribution by bringing together socioeconomic information that crosses traditional management divisions such as wildlife, forests, water and protected areas. The highlights provided in this publication will be amplified in future reports dealing with economic and emerging sustainability issues in order to meet a diversity of needs among agencies, organizations and individuals. Such social and economic findings will be useful to senior decision makers in a number of policy and planning areas, as outlined below.

In the introduction to this report, the responsibility of all Canadians to act as stewards of Canada's natural wealth was introduced. Fundamental to this responsibility is the need to understand the full range of socioeconomic benefits to people that enable them to use and enjoy Canada's nature while ensuring it is sustained for future generations.

Information on socioeconomic benefits revealed by the Nature Survey can serve as a tool to influence the decisions of governments at all levels, industry, organizations and individual Canadians to sustain Canada's natural wealth. For example, it can be used to:

- **Develop new socioeconomic indicators of sustainability to improve decision-making.** In 1995, the World Bank proposed a new approach to valuing national wealth that includes the traditional economic components as well as three other wealth measures — social capital, natural capital and human capital. This broader measure would allow the concept of sustainable development to mean that future generations are left with as many opportunities as, if not more than, the previous generations had. Work is under way in Canada to develop socioeconomic indicators of sustainability modeled on the World Bank's new concept of national wealth. The Nature Survey results will contribute vital information for this work by providing the basis for national estimates of recreational values for water, biodiversity and other components of natural wealth.

- **Enhance public recognition of the important economic contributions of Canada's ecosystems and biodiversity in the national income accounts.**
  Canada's national income accounts are intended to provide indicators that assess the performance of the economy. However, environmental goods and services are not fully reflected as a productive input in these accounts. Efforts to correct this omission are under way in a set of Environmental Satellite National Income Accounts. Identifying the various goods and services provided by biological resources and ecosystems and estimating their economic value are essential in efforts to reform national income accounting practices. Vital information from the Nature Survey will play an important role in this task.

- **Help to demonstrate the significant returns to investment in actions to sustain Canada's natural assets by providing measures of the socio-economic benefits that may be lost if these assets are degraded.**
  The Nature Survey results confirm the significance of nature as an important social and economic asset to Canadians. Knowledge of the benefits they derive from nature assists Canadians in their effort to recognize the magnitude of the lost benefits should natural assets be managed in unsustainable ways. Because these assets are renewable, the benefits derived from them can be enjoyed in perpetuity, provided that programs aimed at sustainability are maintained or developed.

- **Apply social and institutional incentives and design economic programs in support of sustaining Canada's natural wealth.**
  Given the environmental significance and the immense popularity of nature-related recreational activities demonstrated by the Nature Survey, government agencies and non-government organizations are accountable to diverse and nation-wide constituencies. Socioeconomic findings such as these are essential inputs in policy review, legislation development, land use planning, allocation decisions, marketing strategies and monitoring processes designed to support the sustainability of natural wealth. Further, findings from the Nature Survey on the high levels of expenditures by Canadians on nature-related activities, and their willingness to pay more than what they currently spend to enjoy these activities provide managers with an opportunity to develop creative ways to encourage agencies, organizations and individuals to contribute to the cost of maintaining and enhancing Canada's ecosystems and biodiversity.

- **Recognize the need to adopt sustainable lifestyles by demonstrating the costs to society of environmental degradation or damage.**
  Information from the Nature Survey on the benefits of abundant and diverse ecosystems and biological resources to the well-being of Canadians can be employed to weigh the benefits of sustainability against activities that endanger the health and integrity of Canada's ecosystems and biodiversity. The emerging importance of such evidence in natural resource damage assessments and in compensation and mitigation claims underscores the need to continuously monitor these benefits across Canada.

- **Understand the important role of preserving Canada's natural environment in maintaining and enhancing Canada's tourism industry.**
  In every season of the year, Canada's natural environment provides opportunities both to Canadians traveling in their own country and visitors from other countries to experience outstanding scenery and wildlife. Nature Survey results can be used to enhance understanding of this nature-based tourism. In particular, they can be used to illustrate how expenditures by tourists who engage in nature-related activities contribute significantly to the Canadian economy in the form of income and jobs. Such insights can provide powerful financial incentives to maintain and, where possible, enhance Canada's natural wealth through job creation and capital investment.

- **Contribute to the sustainable management of forest resources by providing information on non-timber uses and values of forests.**
  Since the early 1990's, forest management and forest policy has been significantly re-defined at international, national, and local levels, in response to changing values, new

scientific knowledge, institutional changes and a perception of a growing scarcity of environmental attributes and opportunities for nature experiences. The overall goal of the new forest policies and new approaches is to provide a framework for the sustainable management of forest resources for a broad spectrum of economic and social values while protecting biodiversity and ecosystems for future generations. However, in many cases, information on non-timber uses such as recreation, nature study, hunting and fishing is lacking. Socioeconomic information such as that provided by the Nature Survey is essential for assessing these uses and their relative value to society.

- **Enlist support for protected areas by increasing awareness among Canadians of the importance of these areas to their lives and to the society in which they live.** While the major purpose of establishing protected areas is to preserve natural environments that might otherwise be degraded, many of these areas, in particular national and provincial parks, also provide tourism and recreation opportunities. The Nature Survey establishes that nature-based tourism opportunities draw millions of Canadians to parks and other protected areas. The sustainable use of these areas by nature-based tourists can represent an important source of economic benefits for surrounding communities to help offset the costs of establishing and maintaining these areas.

- **Provide for a more informed public which in turn will lead to a more effective public participation process.** In recent years, public participation processes have played an increasingly important role in decision-making. These processes work most effectively if the participants as well as decision-makers are fully informed about the socioeconomic benefits to people that enable them to use and enjoy Canada's nature while ensuring it is sustained for future generations. The socioeconomic information provided by the Nature Survey can make a significant contribution to these processes.

Appendix I. Definition of Terms

Key terms as they are defined in this report are explained below.

Active participation — the proportion of the Canadian population that actually takes part in a nature-related activity (compare with **potential participation**).

Day — all or any part of a calendar day (24 hours or less) spent participating in a given nature-related activity. For example, if a hunter hunted two hours one day and three hours another day, it would be recorded as two days of hunting. If a hunter hunted two hours in the morning and one hour in the evening of the same day, it would be considered one day of hunting.

Expenditures — expenses personally incurred by the participant for the purchase of goods and services to be used primarily for participation in a nature-related activity. Goods bought for other purposes but used in nature-related activities are not considered to be legitimate costs of nature-related activities. Expenditures are divided into the following categories:

Expenditures on land for conservation: Costs include the maintenance, restoration or purchase of land to provide food or shelter for fish or wildlife, or to conserve or restore a natural setting. An example would be maintaining or adding to an area certain types of plants for the purpose of feeding or sheltering wildlife. The respondent could not include, for example, his/her cottage.

Expenditures on residential wildlife-related activities: Such items as the cost of feeders, feed for wildlife, birdhouses, magazines, films and cameras used primarily for wildlife would be included.

Expenditures on transportation: Such items as the cost to operate private vehicles (gas and repairs for autos, private boats, planes, RVs...), vehicle rental (rental and insurance costs for autos, boats, trucks, RVs...), local transportation (including taxis, city buses...), fares for airplanes, boats, trains and buses would be included.

Expenditures on accommodation: Such items as the costs of campgrounds, cabins, lodges, hotels, motels and resorts would be included.

Expenditures on food: Such items as food and beverages bought at stores and restaurants would be included.

Expenditures on equipment: Includes equipment personally purchased by the participant for a given activity in Canada in 1996; for example:

- general outdoor equipment (cameras and accessories, recording equipment, binoculars, bikes, camping gear, special clothing, footwear, luggage, backpacks...)
- skiing (skis, ski boots, ski clothing, other ski equipment...)
- snowmobiling (snowmobiles, snowmobiling clothing, other snowmobiling equipment...)
- hunting (guns and accessories, game carriers, calls, dogs, decoys...)
- fishing (rods, reels, other fishing equipment...)
- boats/motors (boats, canoes, kayaks, sailboats, boat motors...)
- vehicles (trucks, campers, RVs/motorhomes, ATVs...)
- any other equipment.

Expenditures on other items: Includes such items as recreation and entertainment costs (licenses, entry fees, guide fees...), retail purchases (souvenirs, books, magazines, film and photographic services, equipment rental and repairs, batteries...) and special items for hunting (ammunition, dog maintenance) or fishing (bait, tackle, line...).

Fish — fish found in fresh and salt water (lakes, rivers, streams, oceans or other natural water bodies); for example, salmon, cod, trout, walleye, perch, pike, smelt, etc.

Fishing — See **Recreational fishing**

Frequency of participation — the number of times during the year that a participant takes part in a given nature-related activity. Two measures of frequency are discussed in the report: the number of **days** of participation in an activity, and the number of **trips** taken to participate in an activity.

Hunting — searching for, pursuing, stalking, trailing or lying in wait for game which may or may not be harvested. In this report, hunting taking place as the main activity is distinguished from hunting that takes place as a secondary activity on trips taken for outdoor activities in natural areas.

Indirect nature-related activity — an activity that allows the participant to experience nature indirectly. Indirect nature-related activity includes reading about nature, watching films or television programs about nature, purchasing art, crafts or posters of nature, visiting zoos, game farms, aquariums or natural history museums, joining or contributing to naturalist, conservation or sportsmen's clubs and maintaining, restoring or purchasing land for conservation.

Large mammals — big game and non-game species, such as deer, bears, cougar, moose, mountain sheep, caribou, seals, whales, etc.

Location — the place at which a participant took part in nature-related activities. Participants were asked to name the province, nearest city, town or village and distance from their residence of the major locations for their nature-related activities.

Natural area — the areas at which nature-related activities take place. Natural areas include forests, water bodies, wetlands, open fields and other areas such as scrubland and caves.

Nature — natural areas and the wildlife and fish that live in these areas.

Nature-related activity — a recreational activity that includes, in some form, either direct or indirect contact with nature. **Outdoor activity in natural areas**, **residential wildlife-related activity**, **wildlife viewing**, **recreational fishing**, **hunting**, and **indirect nature-related activity** are included in this category.

Nature-related organization — organizations such as naturalist and conservation organizations and sportsmen's clubs.

Other birds — wild birds other than waterfowl; for example, robins, sparrows, warblers, hawks, owls, grouse, partridge, pheasants, etc.

Other wildlife — wildlife other than waterfowl, other birds, small mammals, and large mammals; for example, butterflies, frogs, snakes, lizards, etc.

Outdoor activity in natural areas — one or more of 17 specified recreational activities that take place on trips to natural areas such as forests, water bodies, wetlands, open fields and other areas such as scrublands and caves. Types of outdoor activity included are: sightseeing in natural areas, photographing natural areas, gathering nuts, berries or firewood, picnicking, camping, swimming/beach activity, canoeing/kayaking/sailing, power boating, hiking/backpacking, climbing, horseback riding, cycling, off-road vehicle use, downhill skiing, cross-country skiing/snowshoeing, snowmobiling and relaxing in an outdoor setting.

Overnight trip — an occasion on which a participant left his or her residence for a given activity and spent at least one night away from home.

Park or protected area — a national or provincial park or other protected area.

Participation rate — the proportion of the population 15 years of age and over represented by participants in a nature-related activity.

Population — the Canadian population 15 years of age and over in the 10 provinces and the Yukon in 1996. Excluded are residents of the Northwest Territories, residents of Indian reserves, full-time members of the Canadian Armed Forces and people living in institutions.

Potential participation — the proportion of the Canadian population that indicates an interest in taking part in a **nature-related activity**, without necessarily doing so (compare with **active participation**).

Recreational fishing — catching or attempting to catch fish for non-commercial purposes. In this report, recreational fishing that takes place as the main activity on trips is distinguished from fishing as a secondary activity on trips taken for outdoor activities in natural areas.

Residential wildlife-related activities — activities that take place around the residence, and involve watching, photographing, feeding or studying wildlife, or maintaining shrubs, plants or birdhouses for wildlife.

Rural residence — an area (rural farm or non-farm) with under 10,000 people.

Same-day trip — an occasion on which a participant left his or her residence for a given activity and returned on the same day.

Small mammals — small game and nongame species, such as rabbits, squirrels, raccoons, foxes, groundhogs, beaver, other furbearers, etc.

Trip — an occasion on which a participant left his or her residence for a given activity. Same-day trips and overnight trips are included in this category.

Urban residence — a community of 10,000 people or more.

Waterfowl — ducks, geese, herons, cranes, etc.

Wildlife — wild birds and other wild animals, not pets or other domesticated animals. It includes waterfowl, other birds, small and large mammals and other wildlife in a natural environment. Animals in zoos or game farms were not classified as wildlife in this study, except with respect to indirect nature-related activities.

Wildlife viewing — watching, photographing, feeding or studying wildlife on trips taken for the purpose of enjoying wildlife and natural areas. Wildlife encounters on trips taken for purposes such as vacation or business are excluded from the definition. In this report, wildlife viewing taking place as the main activity on trips is distinguished from wildlife viewing that takes place as a secondary activity on trips taken for outdoor activities in natural areas.

Appendix II. Comparability of 1996 and 1991 surveys

The questionnaire for the 1996 Survey on the Importance of Nature to Canadians included questions similar in many respects to those used in the 1991 Survey on the Importance of Wildlife to Canadians. For example, in the two surveys similar questions were used in the sections on Trips Taken to Watch, Feed, Photograph or Study Wildlife, Recreational Fishing, Hunting Waterfowl, Other Birds, Small Mammals, Large Mammals and other sections. However, due to the impact of changes to the questionnaire for the 1996 Nature Survey, estimates from that survey may not be directly comparable with similar estimates from the 1991 Wildlife Survey.

When attempting to compare results from the 1996 and 1991 surveys, users should be aware that the differences may be due in part to changes in the questionnaire and not necessarily to actual increases or declines in participation in those activities over time. Guidelines for taking changes in the questionnaire into account when making comparisons are provided below.

Tables 26 and 27 present selected results for fish and wildlife-related activities in Canada from the 1996 Nature Survey and the 1991 Wildlife Survey. Table 26 includes results on participation and Table 27 includes days spent.

Changes made in the 1996 Nature Survey and their impact on comparability with the 1991 Wildlife Survey include:

1. The 1996 Nature Survey questionnaire was designed so that respondents would not report the same days, trips and expenditures in more than one section of the questionnaire.

Respondents were asked to complete a section only when the activity covered was the **main reason** for their nature-related trips. As a result, the 1996 Nature Survey should provide estimates of days and expenditures that are more representative of nature use than would be the case if the effort to avoid double counting had not been as great.

Table 26

Comparison of number of Canadians participating in selected activities, 1991 Wildlife Survey and 1996 Nature Survey

DATA COMPARABILITY: Results for 1996 in this table may not be directly comparable to those for 1991, as a result of enhancements to make the 1996 survey more representative of nature use. See points 1 to 7 of Appendix II for guidelines on making comparisons between 1991 and 1996 survey results.

1991 WILDLIFE SURVEY (number and percentage of population aged 15+)	1996 NATURE SURVEY (number and percentage of population aged 15+)		
Residence-related wildlife activities in Canada	**Residence-related wildlife activities in Canada**		
• residence and cottage combined	• residence only		
14.5 million	9.0 million		
69.5%	38.3%		
Persons who participated in wildlife-related trips in Canada	**Wildlife-watching in Canada**		
	• as main or secondary activity[1]	• as main activity	• as secondary activity
3.8 million	4.4 million	1.5 million	3.7 million
18.0%	18.6%	6.2%	15.5%
Recreational fishing in Canada	**Recreational fishing in Canada**		
(main and secondary reasons not specified)	• as main or secondary activity[1]	• as main activity	• as secondary activity
5.5 million	4.2 million	3.1 million	2.2 million
26.2%	17.7%	13.2%	9.4%
Hunting in Canada	**Hunting in Canada**		
(main and secondary activity not specified)	• as main or secondary activity[1]	• as main activity	• as secondary activity
1.5 million	1.2 million	1.0 million	0.4 million
7.3%	5.1%	4.2%	1.8%

[1] The total for main and secondary activity combined is less than the sum of main and secondary activity considered separately since some Canadians participated both as a main and secondary activity during the year.

2. The 1996 Nature Survey included sections on Trips Taken to Watch, Feed, Photograph or Study Wildlife, Hunting and Recreational Fishing similar to those in the 1991 Wildlife Survey. However, the 1996 survey also included a new section on Outdoor Activities in Natural Areas. This section covered nature-related trips taken for the **main reason** of one or more of a list of specified outdoor activities, such as camping or boating (see Section 2.1 for the complete list). A separate question in the new section asked about participation in fish and wildlife-related activities as a **secondary reason** for trips.

The inclusion of the section had an impact on survey estimates for Wildlife Viewing, Recreational Fishing and Hunting. Due to this change, examining 1996 Nature Survey results on these activities is more complex than in the 1991 Wildlife Survey, since both main and secondary reasons must now be taken into account.

There are two major benefits resulting from this change: a) for the first time, the mix of outdoor activities with wildlife viewing, fishing and hunting is revealed and b) core groups of participants whose main activity on trips is wildlife viewing, fishing or hunting can be distinguished from those for whom these are secondary activities on trips taken for outdoor activities such as camping or boating.

Examples of comparisons:
Participation: Table 26 shows that 1.5 million Canadians hunted in Canada in 1991. Hunting as a main or secondary activity was not specified in the 1991 Wildlife Survey. In comparison, the table shows that 1.2 million Canadians hunted in Canada in 1996. This includes the 1.0 million reporting hunting as the main activity in the 1996 Nature Survey and 0.4 million reporting hunting as a secondary activity. (The total of 1.2 million hunters is less than the sum of those who hunted as the main activity and those who hunted as a secondary activity since some Canadians hunted as both a main and secondary activity during the year.)

Days: Table 27 shows that hunters spent 24.1 million days on this activity in Canada in 1991. Days associated with hunting as a main or secondary activity were not specified in the 1991 survey. In comparison, the table shows that in 1996,

TABLE 27

COMPARISON OF DAYS SPENT ON SELECTED ACTIVITIES, 1991 WILDLIFE SURVEY AND 1996 NATURE SURVEY

DATA COMPARABILITY: Results for 1996 in this table may not be directly comparable to those for 1991, as a result of enhancements to make the 1996 survey more representative of nature use. See points 1 to 7 of Appendix II for guidelines on making comparisons between 1991 and 1996 survey results.

1991 WILDLIFE SURVEY (total and mean days)	1996 NATURE SURVEY (total and mean days)		
• residence and cottage combined	• residence only		
1.1 million	1.3 billion		
74.4 mean days	140.1 mean days		
	• as main and secondary activity combined	• as main activity	• as secondary activity
81.5 million	77.4 million	16.4 million	60.9 million
21.6 mean days	17.6 mean days	11.2 mean days	16.2 mean days
(main and secondary activity not specified)	• as main and secondary activity combined	• as main activity	• as secondary activity
78.3 million	72.0 million	33.0 million	39.0 million
14.3 mean days	17.2 mean days	10.6 mean days	17.6 mean days
(main and secondary activity not specified)	• as main and secondary activity combined	• as main activity	• as secondary activity
24.1 million	20.2 million	12.4 million	7.7 million
15.7 mean days	16.9 mean days	12.5 mean days	18.5 mean days

hunters spent a total of 20.2 million days hunting in Canada, of which 12.4 million days were spent hunting as the main activity and 7.7 million days involved hunting as a secondary activity.

3. The coverage and wording of the sections on *Indirect Activities*, *Memberships/Contributions to Organizations*, and *Maintaining Land for Conservation* were changed in the 1996 Nature Survey, so careful attention should be made to differences in the questions when attempting to make comparisons.

4. *Residential Wildlife-related Activities* included both those around the residence and cottage in the 1991 survey, whereas only activities around the residence were included in the 1996 survey.

5. *Primary Nonconsumptive Wildlife-related Trips* were defined in the 1991 Wildlife Survey to include trips for which the primary purpose was to watch, feed, photograph or study wildlife. The question was intended and expected to determine participation where the main intention of the activity was wildlife viewing. The 1996 Nature Survey made a distinction between *wildlife viewing as the main activity* and *wildlife viewing as a secondary activity*. As a result, core groups of participants whose main activity on trips was watching, feeding, photographing or studying wildlife are distinguished from those for whom these were secondary activities on trips taken for outdoor activities such as sightseeing or camping. These differences in the two surveys should be taken into account when attempting comparisons between the two surveys of results on the watching, feeding, photographing or studying of wildlife on trips.

6. *Watching, feeding, photographing or studying wildlife as incidental activities on vacation or business trips (Incidental Wildlife Encounters)* were covered in the 1991 Wildlife Survey, whereas these activities were not included in the 1996 Nature Survey.

7. The 1991 survey covered *four types of hunting* — waterfowl, other birds, small mammals and large mammals. It did not make a distinction between hunting as a main or secondary activity. The 1996 survey covered the four types of hunting as main activities, and hunting as a whole as a secondary activity. As a result, estimates of participation, days and expenditures for the four types of hunting are not directly comparable in the two surveys. The benefit of this change is that core groups of participants whose main activity on trips was hunting waterfowl, other birds, small mammals or large mammals can be distinguished from those for whom hunting was a secondary activity on trips taken for outdoor activities such as camping or boating.

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APPENDIX IV. FEDERAL, PROVINCIAL AND TERRITORIAL SURVEY SPONSORS

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